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The Salary Question.

Developing a Program for Continuous School Publicity

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The voters in the United States know something about their schools and are constantly receiving information concerning them from different sources. Too often, however, these sources are prejudiced and misinformed. Disgruntled taxpayers, teachers, parents and pupils spread reports which are very much distorted. It is a rare community whose citizens know what is actually going on in their schools. Their ideas of modern school practices are very vague indeed. With the exception of accounts brought home by children, the parents' knowledge is based upon remembrances of schools they attended years ago.

Many worth-while school reforms have failed and often superintendents have been forced to seek other fields of service because public opinion moves slower than the school administration. For example, the mere mention of standardized tests in some communities has the same effect as striking a cat's fur the wrong way. Analyzing such a situation, we find in nine out of ten cases, that some ambitious and well-meaning superintendent forced a large testing program on his teachers and pupils, without explaining to them and the public the value of such procedure. We shall also find, in all probability, that the superintendent was either invited to leave or left before the invitation was given.

Campaign Publicity. Several years ago when additional support was necessary to finance schools, periodic campaigns were begun to help carry bond issues. To a certain extent this type of publicity is still necessary, but whenever overdone, it savors too much of the unrighteous man's prayer as a ship is sinking in mid-ocean. The public becomes suspicious of school news which comes only at times when more money is needed.

Continuous Publicity. More recently we have begun to hear about continuous newspaper publicity for schools, or as one prominent superintendent calls it "Telling the People." Cleveland offers a conspicuous example of a city which has a definite publicity program headed by a director of publications. In other cities, similar work is carried on under the direction of the superintendent or a publicity committee.

Recent Publicity Studies. For the past two years, the Bureau of Educational Research at Ohio State University has conducted investigations in respect to continuous publicity. The first of these studies was an attempt to determine the kind of school activities having news value. One hundred cities from 31 different states cooperated, by sending each month, titles of the newspaper articles and stories appearing in their local papers.¹ A composite list of all the items reported was returned each month to those cooperating. These lists suggested to the superintendents possible stories or articles for his local paper. Needless to say, the number of titles from a given city increased in geometric proportion from month to month. An analysis of the data showed conclusively that in addition to general school news, there is a definite amount of school news which might be termed seasonal. For example, such items as "Schools close for Christmas Holidays," "Christmas Program," and "Holiday Meetings of State Teachers' Association" have news value in December. Likewise, June and February are the months when stories and articles on commencement,

promotions, the value of high school education, and honor rolls, are available. Similar items were found which could be used to best advantage during each of the other months.

A Tentative Publicity Calendar. During the summer of 1924, Mr. Edward R. Johnson, principal of Amherst, Ohio, high school, who was then doing graduate work under the direction of the author compiled a tentative publicity calendar. He made use of the many suggestions submitted to superintendents and three large scrap-books loaned for the purpose by Mr. Clyde R. Miller, director of publications in Cleveland. These scrap-books contained school stories and articles from the Cleveland papers for a period of one year. The tentative calendar was then submitted to all city superintendents throughout the country, in cities of 5,000 population or over, for criticisms and suggestions. Through the splendid cooperation of these men, it was possible to make a rather complete calendar showing many activities particularly adapted to each of the twelve months.

The purpose of such a calendar is to help the schoolman plan his publicity in advance so that he will not have to tell the reporter every other time that he has "nothing today." The best supplement to such a calendar is a scrap-book containing newspaper clippings from the previous year. Practically all national advertisers have what they call a "morgue" which is nothing more than scrap-books containing both used and unused ideas. In case new plans for advertising are to be made, the morgue is always consulted. In like manner the school superintendent should examine materials in his scrap-book for January, 1924, when he is planning publicity for the same month in 1925.

Many communities do not have newspaper service but this does not mean that they have no opportunity for publicity. The writer has just received two school papers from one-room rural schools. The content was made up by the teachers and pupils of the individual school and mimeographed in the county superintendent's office. In another county, a publicity committee gathers news items from the different schools and submits them to county and local papers. In still another rural district, there are eight local high school papers having a common content for approximately half of their papers and local news for the rest. Since these are all printed by the same printer, school papers are made possible which would otherwise be too costly.

So far in this discussion it has been presupposed that publication of some sort was necessary in order to secure publicity, but this is not the case. There are many school activities which in themselves act as means of obtaining publicity for the school system. In order to find out the exact number of these and their relative value, Mr. H. C. Koch of the Bureau of Educational Research at Ohio State Uni-

¹Johnson, Edward R. "A Suggestive Calendar for Continuous School Publicity." Educational Research Bulletin, Vol. III, No. 24, pp. 305-308.



versity, is now making a study of the different means of securing publicity not dependent upon newspapers or other means of publication. A stock judging contest has in itself a publicity function. Still more publicity may be given to the event if the newspaper account is circulated. The latter, however, is not absolutely necessary. The same is true of such events as athletic contests, athletic events, and extra-curricular activities. The following is a brief outline of similar items:

1. **Athletics.** Football, basketball, baseball, track, state tournaments, etc.

2. **Clubs and Organizations.** Debating clubs, glee clubs, orchestras, bands, boy scouts, girl scouts, and honor societies.

3. **Exhibits.** (Permanent and temporary) in store windows, county fairs, etc. Fine arts, home economics, classroom products, prizes won by individuals and by schools and photos of pupil activities.

4. **Display of school facts.** Information in schools, store windows, and civic clubs. Charts, graphs, and maps showing the following: (1) development and expansion of curricula; (2) professional training and requirements for teachers; (3) comparison of local school accomplishment with state and nation; (4) school financial trends; (5) building needs; (6) student funds; (7) spot maps showing shifts in school population; (8) population increases; (9) increases in enrollment; (10) graphic reports of physicians, visiting nurses, and health departments.

5. **Non-Athletic Contests.** Oratorical, debate, stock judging, crop growing, music memory, essay, and journalistic.

6. **Services rendered by Pupils.** Clean-up week activities, traffic officers at dangerous crossings, junior chambers of commerce, musical contributions to local civic bodies by school music groups, and care and entertainment of unfortunate and needy, such as making toys at Christmas.

7. **Special Features.** Extension courses, summer schools, classes for cripples, tubercular, sight-saving, speech-correction, auditorium periods (visitors often invited), dramatization of stories, visual education, addresses by prominent men, school busses, parents' night demonstration classes, teas for mothers, school calendars, radio, and teachers' banquets, etc., etc.

Excursions made by Pupils. To manufacturing and industrial plants, to woods for nature study, and to city libraries.

As a part of the publicity for a given year not the least in importance are the larger policies for improving the schools. The need for explaining new educational policies may be so urgent that other factors are rightfully placed in the background.

Organization. Finally, in order that a program of continuous publicity be carried out to the best advantage some type of organization is necessary. Few cities have seen fit to provide a full-time man for this work, and, therefore, the task generally falls to the superintendent. Reynolds defines two types of organization, one of which he calls the centralized organization and the other the representative organization. The former is headed up in the office of the superintendent or someone appointed by him. The latter type of organization is headed up by a school news committee representing different departments of the school system.²

In the majority of situations, however, there is a more elastic organization or a combination of the two. For example, in a city of 32,000 population the superintendent is advisor and follow-up agent of all publicity. Each building

²Reynolds, R. G. "Newspaper Publicity for the Public Schools." (Concluded on Page 122.)

¹Stevenson, P. R. A Cooperative Study of School Publicity. Educational Research Bulletin, Vol. III, No. 8, 1924. pp. 166-178.

Service of Educational Research to School Administrators¹

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Educational research defines a procedure which seeks to secure valid and conclusive answers to questions relating to education of children. When the answer to a question can be deduced directly from appropriate and accurate objective facts it is certain to be valid. This, however, does not mean that answers to questions not based wholly upon objective facts are necessarily wrong. The true research worker seeks the most appropriate and accurate data (objective and otherwise) which it is possible for him to secure and then endeavors to evolve a conclusion in strict accordance with the data at hand. This means that if he makes an assumption he is aware of it and treats it as such. If he utilizes the results of casual observation, or other facts which are inaccurate, he is not negligent of their limitations. The true research worker assumes the responsibility for ascertaining the limitations of his data and, when they are incomplete or faulty in any other respect, he makes corresponding limitations or restrictions in his conclusions. Thus, it should be apparent that educational research does not necessarily yield valid and conclusive answers to the questions studied, but it does seek the best possible answers.

The most conspicuous phase of educational research and the one which in the minds of most people distinguishes it from much of the thinking about education in the past, is the collection and statistical treatment of objective data when they are needed as a basis for answering a question. However, it is important to note that collecting facts does not constitute all of educational research. It is only one phase of the procedure. There must be a clear definition of the problem, in which there is a precise statement of all the questions to be answered. As noted above the data must be examined critically. Their objective quality does not insure either accuracy or validity. One can be unscientific either in collecting or in using objective data. Finally the research worker must maintain a critical attitude throughout his interpretation of his data and in the verification of hypotheses.

Although the beginning of educational research can be traced back to the last decade of the nineteenth century, or perhaps even to an earlier date, most of the activities in this field have been confined to the last ten years. Since 1914 many school systems have created a research department whose function is to appraise current practices and to investigate as scientifically as possible educational questions that arise. In addition, many colleges and universities which are concerned with teacher training are engaging in educational research. In a number of institutions like the University of Illinois a specific department has been established for the purpose of carrying on this type of work. In others the task of studying educational problems is left largely to the individual members of the staff. However, there is scarcely an institution which recognizes teacher training as one of its important functions which is not attempting, or at least definitely encouraging, educational research. The work of graduate students, particularly in connection with their theses, represents a large investment in this field. Beginning in 1917 the Bureau of



Educational Research at the University of Illinois has compiled a list of the titles of masters' and doctors' theses in education. Although the compilations are incomplete, since all institutions have not reported the titles of theses accepted, 410 doctors' theses and 1,896 masters' theses have been listed during a six-year period. Another index of the present interest in educational research is found in the reports of investigations which are published in educational periodicals, monographs, and bulletins. The biennial survey of education for 1920-22 gives a summary of certain phases of educational research for that period. Exclusive of school surveys and mental tests, 518 titles are listed as "principal" institutions.

A Pertinent Question

From the interest manifested in it, and the financial support now being given to it, educational research evidently has been sold to practical schoolmen. Already it is affecting our educational progress. Experimentation and other types of research represent the spirit of the time. Changes in our schools, some of them destined to have far-reaching effects, are being introduced under the name of research.² Superintendents are looking to educational research for the construction of the curriculum, for the determination of the best size of class, for the determination of the merits of the platoon system of organization, for the evaluation of textbooks, and for the answers to many other questions. Teachers are expecting educational research to tell them the relative merits of the various methods and devices of teaching. Many schoolmen are apparently looking forward to the time when most, if not all of the questions, which are now confusing and hence are a constant source of irritation because they must be thought about, will have been answered by educational research and answered conclusively so that it will no longer be necessary for one's peace of mind to be disturbed by trying to think about them. In the midst of this enthusiasm we should ask ourselves, "What service should the public schools expect from educational research?"

Should a superintendent expect educational research to render a service measurable in dollars and cents or does its service tend to be intangible and embedded in the achievements of the boys and girls of the school system? Will a financial profit accrue to a school system from the establishment and maintenance of a department of research? To what extent are we able to derive valid and conclusive answers to educational questions from objective data?

²For a discussion of the way in which research is modifying educational practice see Judd, Charles H. "Educational research and the American school program." *The Educational Record*, 4:165-77, October, 1923.

In certain quarters there appears to be a belief that educational research is a means for reducing educational expenditures. It has been implied by many writers and speakers, and in some cases definitely asserted, that the application of scientific methods to the study of school problems will result in very significant reductions in educational expenditures. Four illustrations taken from recent educational publications are cited below.

Does Not Reduce Costs

One of the largest publishers of educational tests recently issued a circular which bore the title "Research Department an Economy: Small City Saves 11 Per Cent of the Cost of Education Through a Department of Research Costing Four Per Cent." In this circular they reproduce a portion of an article originally published in a bulletin issued by a Bureau of Educational Research of one of our state universities. This article describes the work of the research department in a school system of a city having a population of less than 7,000. During the school year modifications were made in the organization of the school on the basis of the scores secured by giving certain educational tests. At the end of the year it was found that the per cent of pupils promoted was materially greater than for preceding years. It is asserted by the writer of the original article that the establishment of the department of research was justified by the increased efficiency of the school system. The general purport of the article appears to be that the establishment of a research department in a school system may be considered a financial economy.

Under date of April 1, 1921, "School Life", published by the Bureau of Education at Washington, summarized the results of an investigation made by the Ohio State Department of Education concerning the age-grade status of the children in the elementary schools of that state. The inquiry revealed that 240,000 children were retarded one year, and the author of the original report estimated that the annual cost of the retardation for teachers' salaries alone was \$6,400,000. The implication of the summary published in "School Life", and presumably of the original report as well, is that the elimination of all retardation in the elementary schools in the state of Ohio would result in a reduction of \$6,400,000 in the total expenditures for teachers' salaries.

In a recent article in the Chicago Schools Journal the writer estimates the annual loss due to student failures in the high schools of Chicago to be \$1,500,000. If we accept this estimate, what does it mean? Does it mean that if the standards of promotion were lowered so that the per cent of failures was reduced from 15 to 7.5 there would be a reduction of \$750,000 in the expense of maintaining the Chicago high schools? Does it mean that if improved methods could be devised whereby all failures were eliminated the expense would be reduced to \$1,500,000?

In his recent book on "How to Experiment in Education", McCall asserts on the basis of certain experimental evidence which he cites, that "It is not unreasonable to claim that a wide-spread use of scientific research could so increase the efficiency of instruction as to save a year of instruction." He estimates that this would mean an annual "saving" of three billions of dollars to the United States. The sig-

¹An address given at the Illinois Superintendents' Conference at the University of Illinois, November 21, 1924.

nificance of this estimate becomes apparent when we recall that the annual expenditures for public education in the United States is approximately \$1,500,000,000, or just one-half of the predicted "saving". McCall does not explain the form in which this "saving" would appear. Obviously all of it could not appear as a reduction in our educational expenditures. Some of it would necessarily be secured through the increased earning power of the children who are educated in our schools, due to the fact that they would complete their education one year earlier.

Increased Efficiency as the Goal

Do such statements as these by research enthusiasts paint a true picture of one type of service which we may expect from educational research? Although there are instances of financial economy being effected through a scientific study of educational questions, an unprejudiced survey of educational research during the past ten years does not provide evidence for predicting that we may expect educational expenditures to be greatly reduced as a result of employing scientific methods in the studying of educational questions. This, however, does not mean that the efficiency of our schools may not be materially increased, since increased efficiency can be secured through increasing the achievements of the children being educated, as well as through decreasing the amounts expended.

In considering the extent to which we are able to derive valid and conclusive answers from the collection and tabulation of objective data, it will be helpful to recognize certain distinctions that are apparent in the educational questions which we encounter. There are a large number of questions that relate to the determination of what procedures should be employed in carrying on our schools. For example, "what should be the content of a course in American history? Which one of a group of arithmetics should be adopted for use? In what grade should formal instruction in arithmetic be begun? What poems should children in the elementary school be asked to memorize? What advice, if any, should be given to Mary Brown with reference to the subjects she should study in the high school? How many teachers' meetings should be held during the school year and for what purpose? What should be the relation of the school to extra-curricular activities?"

Few, if any such questions which require the determination of what procedure "should be" employed in the school, can be answered merely by collecting and tabulating objective facts. Such information may be necessary but it is not sufficient. The answers to such questions must be derived, at least in part, from principles and theories in psychology, sociology, ethics, and philosophy. Take, for example, the question, "What limitations should be placed upon the choice of elective subjects by high school students?" Thorndike has shown that the present practice of students in electing subjects is characterized by variety, to the extent that few students belonging to a given grade pursue a common program of studies. This means that there is no standard or typical program of studies for any grade in the high school. There may be one or two constants but student programs are characterized by extreme variety.

The results of Thorndike's study may be used as facts in our thinking, but they do not and cannot tell us what limitations should be placed upon the election of studies. After reading the account of the investigation one may conclude that our present practice in regard to the election of subjects is too liberal, but such a judgment implies the acceptance of certain educa-

tional theories and principles. It cannot be derived from the facts yielded by such an investigation. It is clear that at present few limitations are placed upon students in choosing their electives, but it is possible that some of these restrictions should be removed. Another possibility is that the present conditions should be continued. A third possibility is that additional limitations should be prescribed. An extreme possibility is the total elimination of elective subjects.

In determining what our policy with reference to elective subjects should be, it may and probably is helpful to know what our present practice is, but no amount of evidence in regard to our present practice can tell us what rules we should adopt. In formulating a policy it is necessary to consider also our aim of education, the nature of the learning process, the outcome of learning activities, the individual differences of the children to be educated and perhaps other concepts and principles. The use of such data, however, does not necessarily make our answers wrong. We have given answers to some questions which are generally recognized as being valid without any systematic collection of objective facts. Take, for example, the question, "Should we endeavor to secure better trained teachers than we now find in our elementary schools?" It is very unlikely that anyone would question the validity of an affirmative answer to this question although such an answer has been deduced from casual observation and opinion rather than from any systematic collection of facts. It is probably true that the collection of certain facts has reinforced the answer and emphasized the need for better trained teachers, but the point which I desire to make is that in many cases a valid answer to this question has been given without the employment of the procedures usually considered essential to educational research.

Questions Which Statistics Answer

There are, however, questions which require merely the collection and statistical treatment of appropriate facts. For example, if one wishes to know the instructional expenditures for the various subjects taught in the high school, he may derive the answer by collecting appropriate facts relative to teachers' salaries, the subjects which they teach, the length of class period, the enrollment in each class, etc. If one wishes to know what are the characteristic eye-movements of good readers and of poor readers, he can secure the answer by obtaining appropriate photographic records of the movements of the eyes of typical subjects during the process of reading. Again, if one wishes to know what the activities of a housewife are in connection with foods, the answer may be secured by interviewing a number of representative housewives in regard to the things which they do and then assembling the information in a suitable form. It would be absurd to attempt to deduce the answers to such questions from principles and theories. Neither can they be answered satisfactorily on the basis of casual observation.

In order to arrive at a satisfactory answer to a question through the collection and statistical treatment of facts, it is first necessary to secure appropriate and accurate facts. There are many educational questions that call for factual answers for which it is extremely difficult and in some cases impossible, to secure appropriate and accurate data. Consider, for example, the question, "What is the effect of the size of class upon the results of instruction?" On the surface it may appear that it should not be difficult to collect the facts which are needed to arrive at a conclusive answer to this question. However, a careful analysis of the problem reveals a number of obstacles. In the first place

we could not secure satisfactory facts by searching out small classes and large classes in high schools and measuring the achievements of the students in these columns, because under such conditions we could not know that the instruction and other educative factors to which they have been subjected were equal. It is possible that in general the teachers handling large classes are superior to those handling small classes. It is also possible that the administration and supervision are superior in those schools which have many large classes. If this hypothesis should be true, we could not know whether the differences in the achievements of the children were due to the size of class or to variations in these other factors.

In order to collect appropriate facts it has been proposed to equalize the quality of teaching by having the same teacher give instruction to a large class and to a small class. In an investigation carried on a few years ago in certain large schools in the state of Illinois, it was arranged to have both a large class and a small class in the same subject instructed by the same teacher during the same semester. It may appear that such a plan of experimentation should yield appropriate and accurate data upon which to base an answer to the question being studied, provided we are able to measure the achievement of the children. This, however, is not true. The size of class is intimately connected with the teaching load. Large classes in general mean a heavy teaching load, that is, a large number of pupil recitations per teacher. Small classes in general mean a small number of pupil recitations per teacher. When we have the same teacher giving instruction to both a large class and a small class, the teaching load is the same for both types of classes. Hence we fail to secure normal teaching conditions for either type of class. Since the teacher has only a limited number of large classes, which in every case are associated with corresponding small classes, she is able to employ methods of teaching, particularly in connection with written work, which would be impossible if all of her classes were large. A somewhat similar condition prevails with reference to the individual conferences with the students. Furthermore, the teacher's attitude toward her work is probably not typical of that which prevails when a heavy teaching load has been assigned.

Another difficulty grows out of the fact that usually teachers participating in such an experiment will not have been especially trained for handling either large classes, or small classes. It is not certain that the teaching techniques which are most efficient in instructing large classes will also be most efficient in the instruction of small classes. It seems reasonable that in order to obtain the maximum results, the methods and devices of teaching should vary with the size of the class. It is also possible that there should be differences in the curriculum and in the equipment. Hence, we cannot secure appropriate data until we have all other factors affecting the results of instruction adjusted to the size of class. A patient investigator with sufficient resources at his command might secure the necessary conditions, but it should be clear that it is not an easy matter to establish the necessary experimental conditions for collecting appropriate facts.

Measuring the Achievements of Children

So far we have said nothing with reference to the measurement of the achievements of children. It is obvious that the answer to the question, if it is to be considered complete and conclusive, must be based upon accurate measurements of all the products of teaching. We are now able to measure some school achievement with a fair degree of accuracy but such

measurements are subject to errors, both constant and variable, and frequently these are sufficiently large to make our data meaningless. A more important limitation is that we are not yet able to measure objectively many of the important outcomes of teaching. It appears likely that the size of class might affect the development of initiative on the part of the students, their permanent interest in the subject, and other similar traits. Since we are not yet able to measure objectively such outcomes, it follows that we cannot secure the data necessary for arriving at a complete and conclusive answer.

It seems also that for some questions there may be no permanent answer. For example, it is very doubtful if we can answer many questions which call for the determination of the relative merits of different methods of teaching. There is considerable experimental evidence to show that a teacher's enthusiasm for a given method or device of teaching is a potent factor in determining its success. Since this evidence is in agreement with casual observation it appears very likely that no one of a group of methods or devices of teaching which does not differ widely in merit may be considered distinctly superior. Often the best method for a given teacher is the one which she likes best and our observation of human nature suggests that a teacher's preference for methods is likely to change from year to year. If this is true, the best method for a given teacher this year may not be the one which is best next year or the year after.

In calling attention to limitations which may be encountered in educational experimentation, I do not wish to be understood as implying that one should refrain from experimentation. Even though one may not secure a conclusive answer to his question, some good may result from a carefully conducted inquiry of this type. A critical investigator will be led to analyze his problem and to think clearly about it. Some useful information will be secured. If the experiment is carried out with the right attitude, it may represent a very profitable undertaking. Much good has resulted from experimentation which may be described as informal rather than strictly scientific.³ One should not condemn any procedure which is of assistance in arriving at answers that are more valid than would otherwise be secured. The point I am trying to make is that the service which the collection of objective facts can render in connection with certain types of problems is limited and that we should recognize the character and extent of these limitations.

Before presenting the positive service which educational research may render to our schools I desire to call attention to a possible negative influence. It has been asserted that whatever exists, exists in some amount and therefore can be measured. Accepting this thesis one may maintain that if our past efforts to measure traits of school children have been only partially successful, it is because our instruments are imperfect as yet and that we may confidently look forward to the time when we shall have improved tests and other measuring devices so that we can measure all things pertaining to education. Since measurement is the outstanding prerequisite of research, the acceptance of this premise has led many schoolmen to the conclusion that eventually research will answer all questions. From the acceptance of this belief it is a natural next step to the attitude that those who are not actively engaged in educational research have little or no responsibility

for thinking about educational problems, since they have only to look to those who are prepared to carry on investigations for the answers, and that when a question has been answered by research it may be labeled as settled and one need not allow it to disturb his peace of mind.

Dogmatism of Educational Research

Are we in danger of *rule* by the "dogmatism of educational research?" Are we on the verge of carrying standardization so far that it will hinder our progress? Is there a tendency to accept reported findings of investigations in which objective data have been used with implicit faith in their validity? In our enthusiasm for research we are moving toward a blind following of announced results of investigations labeled scientific and a period of little progress in education.

It may appear to be setting up a man of straw, or begging the question even to suggest such a possibility at this time, but if you talk to superintendents and other educators, or if you read critically the reports of educational research which are appearing in great numbers, and particularly if you read the reviews of books, monographs, and other educational writings, I believe you will find ample evidence of a tendency to accept as valid the pronouncements of investigators who have assembled an elaborate array of objective facts which in turn have been subjected to elaborate statistical treatment. There seems to be much reverence for such work, particularly if the statistical treatment is so technical and intricate that the reader does not understand it. If the investigator labels his work as scientific, many readers accept it as valid because of this label.

Some months ago I read a monograph reporting an investigation in which a great mass of objective facts was collected and subjected to somewhat elaborate statistical treatment. A critical reading of the report revealed that some of the procedures employed by the investigator were open to criticism and that the study as a whole was extremely faulty. Recently I noted a review of this monograph in one of our leading educational periodicals in which the reviewer made no mention whatever either of the faults of the investigation or of the published report of it. Clearly the reviewer, who presumably was considered by the editor of the periodical competent to review the monograph, had done so without being in the least critical of it.

The reverence for objective facts and the as-

sumption that through the collecting of a large enough mass of objective data one may arrive at conclusive answers to educational questions, is exemplified by the reports of many investigations. For example, with reference to the Winnetka Social-Science Investigation, Superintendent Washburne⁴ and his coworker state, "This work has proceeded to the point where we know definitely what persons, places, dates, and events must be known to the child if he is to become an intelligent member of society. We know further the relative importance of these items. . . . The curriculum material itself is, as far as our ability can make it, alive, fresh, and interesting, and at the same time is based on a strictly scientific investigation." When one inquires into the methods employed in this investigation and also when one examines the results critically it is difficult to agree with this published statement of the investigators. They have collected and tabulated objective facts with reference to historical names, dates, and events which may be very helpful in deciding what the content of a course in history should be, but one cannot determine "what persons, places, dates, and events must be known to the child if he is to become an intelligent member of society" merely by the collection and statistical treatment of objective data. It is necessary to introduce into our thinking a concept of the purpose of education and also a concept of the learning process and the ways in which the outcomes of learning function in controlling conduct.

The report of the Winnetka Social-Science Investigation is not an isolated illustration. The same tendency is reflected in a number of other reports of investigations as well as in many public addresses of educators. Teachers who have participated in an investigation by collecting and organizing facts frequently announce that the question which they have been studying has been settled for all time. Many users of standardized tests have made the statement that their results are not open to criticism because the tests were scientifically constructed.

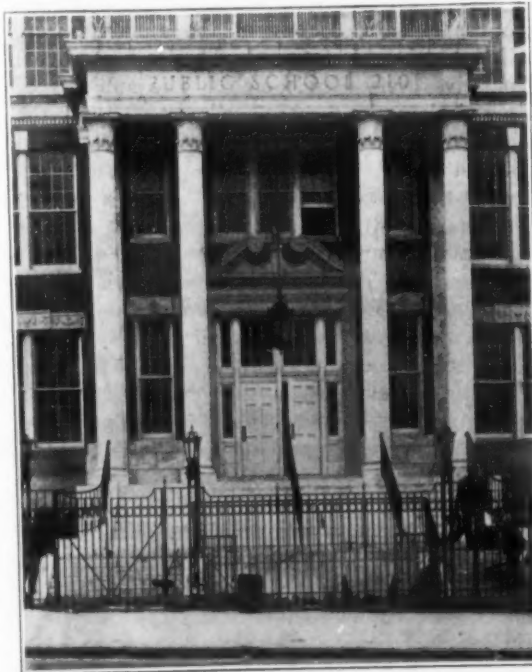
In my judgment there is a very real danger in this tendency to look upon the collection and statistical treatment of facts as a certain means for arriving at valid and conclusive answers to all educational questions. One can be unscientific in collecting and in using objective data. In fact, he will be unscientific unless he is sufficiently critical of his work at all stages. Therefore, it is highly important that not only those who are actively engaged in educational research but also schoolmen in general recognize the limitations of research and cultivate an appropriate attitude toward it.

The Positive Service of Research

Turning now to the positive service which educational research is rendering and may be expected to render, it is obvious from even a casual survey of the published reports of investigations that we are rapidly accumulating a useful body of information about education. We have discovered many weaknesses in our present practice through a systematic collecting of objective facts. Within a period of ten years we have approached much closer to valid and conclusive answers to many questions in the field of education. There is, however, another type of service which may be even more valuable. In a recent article Carter Alexander has called attention to what in his judgment is the most important service rendered by the Educational Finance Inquiry. This investigation has extended over a period of two and one-half years. Professor Alexander, who served as assistant director of the inquiry, says: "The

⁴Washburne, Carleton W. The Winnetka Social-Science Investigation." The Elementary School Journal, 23:267-75, December, 1922.

(Concluded on Page 122)



PUBLIC SCHOOL 210, BROOKLYN, NEW YORK. COLONIAL DOORWAY ONE OF THE FEATURES OF THE NEW TYPE OF NEW YORK CITY ELEMENTARY SCHOOL BUILDINGS.

³For an account of valuable experimentation of this type, see Morrison, Henry Clinton. "The major lines of experimentation in the laboratory schools." Supplementary Educational Monograph No. 24. Chicago: University of Chicago, 1923, pp. 1-19.

A School-Board-Junket of the Sixties

Russell S. Peterson.

"So you fellows have been gallivanting around the country again, pretending to look at school buildings! It's danged queer that in the last few months, you school board fellows feel that it is your duty to junket all over creation at the expense of the public. In the good old days, school board members stayed home and tried to save the taxpayers' money instead of busting their necks to see how much they could spend in railroad fares and hotel bills."

When the oldest and tightest taxpayer comes at you thus, tell him to cheer up; they did it in the good old days of yore too. The only difference between the school board junkets of yester year and those of the present seems to have been that those of the past were a little more elaborate. One such trip was that upon which the Baltimore school board embarked in June, 1867. According to the official report of the expedition, it appears that in that year two committees of visiting school officials had made visits of inspection to the Baltimore city schools. One of these represented the select and common councils and the board of education of Boston, and the other the board of aldermen and the board of controllers of the public schools of Philadelphia.

Inspired by these visits, the school board and city council appointed a joint committee to visit the cities of Philadelphia, New York, Brooklyn, and Boston for the purpose of obtaining information relative to the schools and water departments. The work of the commission in the words of the report was "to ascertain if there were improvements in relation to the public schools and water departments named which were not known, and if so to report them to the city council and school board for use by these bodies if considered desirable in rendering those departments of our city government more efficient and satisfactory." The report makes no explanation of the reason for including the water department in the scope of the committee's investigations.

The commission was composed of fifteen members of the school board including J. N. M'Jilton, superintendent of schools, and ten members of the city council. On Sunday evening, June ninth, 1867, they departed for Philadelphia, the first city on their schedule. The expedition must have been considered of considerable moment by the people of Baltimore for, on their departure, they were given an ovation such as the American public of to-day seems to reserve for football teams, prize-fighters, movie stars, and princes of royal blood. They were escorted to the depot at Baltimore by his honor, the Mayor of Baltimore, several officers of the city government, and a large gathering of friends.

Four hours later when they arrived at Philadelphia, they were met at the depot by a distinguished group representing the board of aldermen and controllers of public schools of Philadelphia. This committee escorted them to the Continental Hotel where rooms had been provided for them. Here what must have been a pleasant surprise awaited them for we read in the report, "At that early hour in the parlor set apart for the use of the commission, a handsome collation had been prepared." This is the first mention of victuals in the report but by no means the last one, for if we can judge from the report, no mean share of their time must have been spent in attendance upon numerous banquets prepared in their honor.

Provision for sleep seems to have had very little consideration in the making of their plans for at eight-thirty, they were greeted by their

Philadelphia escort, a committee of ten prominent Philadelphians including in their number, Morton McMichael, Mayor of Philadelphia. Mutual felicitations were exchanged, and at nine o'clock the entire group proceeded in *carriages* to the various schools to be inspected.

Nearly all classes of schools visited were hurried through a brief examination in spelling, reading, grammar, geography, arithmetic, and singing. They were much impressed with the quality of the Philadelphia teaching of spelling. Their idea of good spelling instruction seems to have been markedly different, however, from what we consider good spelling teaching today. Now we think we have succeeded in our spelling lessons when we have taught our children to spell correctly *on paper*. The modern doctrine seems to be that we spell only when we *write* and *not* when we *talk*, so why waste time on a great deal of oral spelling. Not so, however, with the good spelling teachers of Philadelphia in 1867. The report says: "The best teaching of spelling is that in which the word to be spelled is given out by the teacher, and distinctly spoken by the pupil before division into syllables is allowed; then the direct expression of the letters of the syllable; then the clear pronunciation of the syllable. When the syllables are expressed, the word is clearly enunciated."

The commission does not seem to have been as favorably impressed with the teaching of reading. Here again the standards were based entirely on *oral* reading. The good reader, in their estimation, seems to have been the student who could enunciate clearly, and whose pauses were timed correctly; not the one whom we would select today, the student who could most quickly and most intelligently extract the thought from the printed page. The report makes the following comment upon the Philadelphia reading teaching, "The enunciation was not so clear as the advanced character of the spelling caused us to expect. The evidence of progress in this respect was not so apparent as was anticipated."

One of the Philadelphia schools which interested the committee very much was the Central High School. The number of students there, we are informed, was 537, and they were taught by fifteen "professors". A program was given in their honor by the students. Of this program, the report says, "Four of the students were called up for recitations. They all acquitted themselves very handsomely. The subjects of their declamations were well chosen, and the selections were well delivered." It's too bad that the report does not tell us what the selections were. Were *Spartacus' Address to the Gladiators* and *Webster's Address at Bunker Hill* among them we wonder?

From the Central High School, they proceeded to the Girls' High and Normal School, where they were greeted with more declamations. Of these the report states, "The style of the readings was of an elevated character exhibiting care in the effort to cultivate the physical powers, as well as the mental in the recognition and use of the proprieties of rhetorical precision. Among the pieces was a humorous satire entitled 'Aunt Hetty's Observations on Matrimony'. The reading of the piece deserves special notice on account of the distinctness of the enunciation and the propriety of rhetorical pauses. These pauses were very prominent and gave effect to the reading, rendering it highly attractive and pleasant. Although a humorous piece and at times requiring rapidity of expression, the *enunciation* was most

clear and the *pauses well timed*." (The italics are ours.) Those young women of the Girls' High and Normal School evidently could sing, too, for the report continues, "Their efforts in the melody of sweet sounds were equally impressive with their elocutionary performances."

In Philadelphia, the commission seems to have been very happy in the excellence of their hotel accommodations. At any rate, the report is fulsome in its praise of their inn. Witness: "The quarters assigned the commission were of a most pleasant and acceptable character. Not a member was heard to say that he was not well accommodated. Every attention was given us, and we were as much at home as we could expect to be at a hotel. When the party left, the declaration was upon each lip, that no company of gentlemen could have been better served anywhere."

Their two-day stay in Philadelphia was brought to a triumphant climax with a banquet in their honor, at the conclusion of which they proceeded in carriages to their train for New York. On checking out at the hotel they were given a pleasant little surprise with the information that their bills had been settled.

On their arrival at New York the next morning, they proceeded immediately to the Hotel Metropolitan, where they engaged a parlor and rooms for the company. The report makes very clear that they did not find their accommodations here up to the high standard set by the Philadelphia hostelry. While some of the company had pleasant rooms, the report says, "Complaints were made of being obliged to occupy basement rooms which were on a level with the cellar and within hearing distance of the machinery, laundry, kitchen, etc. The complaints were answered by the provision of better accommodations for those who were determined to secure them or leave." It evidently paid to be a determined kicker in those days, too.

At nine o'clock they were greeted at the hotel by the New York reception committee. After mutual felicitations had been exchanged, one of the members of reception committee exclaimed, "Then for the schools, gentlemen. Carriages are at the door, and we have laid out a programme that will keep us busy throughout the day."

At School Number Seventeen they were interested in the performance of one Don Bryant, junior. At least they devote almost a page of the report to his accomplishments. This Don Bryant was a virtuoso with the bones (Yes, the bones of the old-time minstrel show.) The report waxes enthusiastic in the praise of Bryant's art: "The performance of young Bryant was most extraordinary. The bones moved like living things between his fingers, and so expressive were the sounds that they may well be associated with the tones of the musical scale."

The grand finale of the visit to New York was a dinner given in their honor by the House of Harper. At the conclusion of this, they embarked for Boston. On arrival at Boston, they found a distinguished reception committee awaiting them. (Sleep does not seem to have had much of a place on their program does it?) A little later in the morning after they had been presented to the Mayor, they were called to the carriages in waiting, and the entire company with the Boston reception committee proceeded to the inspection of the Boston schools.

They received a particularly favorable impression from an incident that occurred at the Boston High School. The visit to this school was delayed more than an hour after the regular dismissal time for the school. On seeing the carriages of the party wending their way to the school, however, boys of the school who

happened to be on the street, hurried back to school and took their places in the study hall, that the visitors might really see the school in operation.

The public schools of Boston they found were not numbered as were those of New York, but were named after distinguished citizens. One of the best schools they found to be the Dwight Grammar School. Of this they reported: "The classrooms are spacious and convenient, and not overcrowded with pupils. *Each pupil occupies a single seat and desk* separated from all the others with sufficient space for any movement that may be necessary in the performance of any school duty."

They discovered that the Dwight Primary Schools had a rather unique organization. There were six of these primary schools each of which seemed to be but a single class, and all housed in the same building. Each class or school occupied a single room, had one teacher, and was under the supervision of a sub-committee consisting of one member of the school committee as the Boston School Board was called. They were very much impressed by the information that the teachers of Boston spent no idle time in their classes, but employed all school hours actively and faithfully in the labor of teaching. At Boston they also made an excursion to the water works, where they were served with lemonade, crackers, and home-baked pound cake.

The junket was concluded with a visit to the schools of Brooklyn, where they found reading to be a feature most worthy of study. Here again we are impressed with the fact that it was the oral phase of reading which received their exclusive attention. What they liked about Brooklyn reading was the cultivation of the voice and the use of emphasis and pauses.

In each city visited, they made a careful study of the school board organization. In all of them they found systems which appeared efficient, but which in the light of modern progress toward reduction in size of school boards, and focusing of responsibility, appeared cumbersome and unwieldy.

They found Philadelphia divided into 27 sections, each of which had a school board, meeting once a month. Over these sectional boards was a general board exercising control over the whole city, entitled, "The board of

controllers of public schools". The board of controllers consisted of 27 "gentlemen", we are told, one representing each section. The school directors of each section supervised the schools of their section, selecting teachers from persons with certificates after examination by the committee on qualification of teachers of the board of controllers. They ordered supplies from stock provided by the committee of supplies of the board of controllers. The sectional board could make no contracts, or purchases, without permission of the board of controllers, and they were not allowed to contract any debt over one hundred dollars. The sectional board designated what was needed for the support of their schools, and in a limited degree provided for it, but the central body had charge of funds and paid the bills. It all seems rather unwieldy to us, but at that it does not look any worse than the small district unit of rural school administration which we have in some of our states.

In New York, they found the duty of conducting all operations of the working of the school system committed to four different official bodies. The first of these bodies was the board of education, consisting of 21 members. The city was divided into seven school districts, each district represented on the board by three "gentlemen". The term of office of each member was three years. The board of education had general supervision over the entire system, and held in charge the school property, appointed the superintendent of schools, as many assistant superintendents as deemed necessary, and a superintendent of school buildings, and determined their duties. They established, visited and examined schools, disposed of useless property, confirmed appointments of teachers and assigned their duties, determined the amount necessary for the support of the schools, and drew on the city chamberlain for the same.

A second official body in charge of the New York public schools was called the inspectors of common schools, and each of the seven school districts was in charge of three inspectors. Their duty was to visit and inspect the schools; note irregularities and suggest improvements; certify all expenses incurred by the trustees and ordered for payment; examine the attendance of pupils and teachers; test the qualifications

and faithfulness of teachers in the performance of their duties; attend to the warming and ventilation of schoolhouses and the comfort of teachers and pupils, and ascertain if sectarian doctrines were taught in the schools. All matters requiring correction were reported by the inspectors of common schools to a third body called the board of trustees.

This board of trustees was composed of five members from each of New York's 22 wards, or 110 in all. The trustees, we are informed, had an "especial supervision over the schools". They had in charge the school premises; conducted and managed the schools; furnished supplies; provided for repairs, alterations, and additions. The expenses generally of the schools were ordered by the trustees, audited by the inspectors, and paid by the board of education. Talk about checks and balances! The committee found that principals and vice principals were appointed by the board of education, while teachers and the janitors were appointed by the board of trustees. In addition to the three boards mentioned, there was a *scholastic* department consisting of one city superintendent and five assistant superintendents.

In Boston, they found the control of the schools vested in a school committee of 74 members, consisting of the mayor, the president of the council, and six representatives from each of the city's twelve wards. This committee had 156 sub-committees. There was a sub-committee for each class of the primary schools, and a sub-committee for each of the other schools. Boston also had a superintendent of schools who was in charge of the *literary* department.

The report concludes with these words of optimism: "All the systems are working progressively, doing good service to the cities, the states, and the country. The study generally, and the labor of school officials relate to the moral and intellectual advancement of the learner and his preparation for the duties of practical life. In varied development, the chief aim appears to be the removal of the mechanical as exhibited in the old rote or memorizing system, and the substitution of the intellectual in the free exercise and expression of mental power."

The Management of the Small City School System

Harvey D. Douglass, Lake Odessa, Mich.

One test of the efficiency of the superintendent is definiteness in the direction of the various functions of the school system. The superintendent must direct the work of the system in a businesslike manner and he must furnish a progressive educational program.

Teachers' Meetings

One of the important functions of the superintendent is the management and direction of the teachers' meetings. It is through the teachers that the work of the school system is carried out. The superintendent is the general; the teachers are his officers. Through them the plans of the superintendent are carried to the pupils, who may be likened to privates in the ranks. Without good generalship the work will be to no unified purpose; there will be chaos.

The efficient executive delegates authority to others. The superintendent can not be at all parts of the school system at the same time. Neither can he do all the work necessary for the efficient management of the school system. On account of this and other conditions, he must delegate authority to other members of the faculty.

The teachers' meeting is the superintendent's means of presentation. At these meetings it is his place to furnish the inspiration to the other members of the faculty and keep the fires alive. He should hold these meetings at a definite time. He should call them on time, and should not allow them to drag out to such length that they become a bore. There will be times when he should not call a meeting. He has no business to take the time of the teachers, unless he has a definite plan to present or something of general interest. He should not call a meeting unless he has a definite progressive or educational program to present.

There will be no objection to holding these meetings right after school closes, if they are made *snappy* and the superintendent carries out the ideas before mentioned. A good time is on Monday. This is the beginning of the week. Meetings should not be held on examination weeks, or at times teachers are called together for some other purpose.

There are times when all the faculty should be called. The superintendent would otherwise need to make many calls upon the indi-

vidual members of the faculty when only one announcement in the teachers' meeting would convey the information. At other times, he may call meetings of the teachers of certain departments, grades, or subjects. At these meetings the superintendent may direct studies of the several subjects of the curriculum, etc. Other meetings may be called for the kindergarten teachers, or the high school teachers. At these meetings, in addition to the talks of the superintendent or, as a change, some teacher who is strong in discipline, or in the teaching of some subject may present her ideas to the other members of the faculty. At other times a demonstration class may be held. If this is handled in the right manner by the superintendent, it will be presented and received in the proper manner and great good result.

As a pleasant and profitable diversion from the above, the superintendent may call a faculty get-together once a month. All suggestion of school should be kept out of these meetings as much as possible. The teachers usually meet only in a professional way during school hours. They seldom see each other at other

times, and the consequence is they seldom get acquainted, except in one or two instances. A good hour for these meetings is 5:30 p. m., and they should end by 7:00. However, they may be held at any hour that is most advisable. Teachers should be willing to give one period like this each month for the good of the cause. The results are warranted, since friendliness and a better spirit on the part of the faculty, accomplish much in a school system.

The above named hours interfere the least with outside affairs. Refreshments may vary from nothing up to a regular dinner. The superintendent should appoint a committee of two congenial spirits to make the arrangements, and the cost should be apportioned proportionately among those who attend. The collection should be made as soon as possible after, not at, the meeting.

The system in which the superintendent does not hold regular teachers' meetings will soon be composed of several separate units, each having its own objective and going its own way. The teachers' meeting when properly conducted is inspirational and instructive to the entire faculty, superintendent included. It also promotes harmony.

Management of the Library

The library is an important adjunct of the school system. The superintendent should see that it is properly managed and used. The amount of knowledge the faculty conveys to the pupils depends, to a great extent, upon the use that is made of the library. The use to which it is put depends, to a greater extent, upon how it is managed.

In too many instances, the small library is not properly cataloged and there is no regular librarian. Where a regular librarian can not be obtained the superintendent should see that the books are cataloged. This may be done by using a Dewey Classification book. No doubt errors will be made in the classification of the books as this is the work of a trained librarian. However, the books will be in much better shape for use after being cataloged, even by an inexperienced librarian. Cards and supplies, with directions for their use, may be had from any house handling library supplies. The superintendent should appoint a pupil to take charge. As many assistants as are needed may be chosen. When a library is managed haphazard the books are not used because they can not be found. This is caused by their being misplaced or lost.

No books should leave the library unless they are charged. New books should not be placed in the library until they are cataloged. The librarian should be directed to see that books are returned on time or a report made to the principal or the superintendent. If credits are held back until books are returned *they will be returned*. When the pupils return books they should not be allowed to place them upon the shelves. They should leave them in a designated place so the librarian may remove the charge and have the records complete.

The extent to which the books are used may be determined from the cards; also which books are being read the most. In an efficient school system, the superintendent should see that the library is in condition to be used to the best advantage, and the books will be used.

The magazines and the reading table should be in charge of the librarian. When the magazines arrive they should be checked. Any shortage or failure of arrival should be reported to the superintendent. Issues for the current period may be kept in a rack where they will be readily available. Others should be removed

from the rack and filed on the shelves in order, for later reference.

Care of the Laboratories

The laboratory is the workshop of the science course. The superintendent should see that it is managed in a systematic manner. In the chemical laboratory many of the chemicals are poisonous or explosive; in the physics laboratory the instruments are nearly all delicate or costly; in the biological and agricultural laboratories the work, because of its very nature, leaves the room littered. It is part of the work of the superintendent to see that instructors do not allow these conditions and that they take proper care of the rooms and apparatus.

At the beginning of the course the superintendent should direct that certain material be assigned to the pupils. It is best to charge a small fee. The mortality of all laboratory material is rather high on the expense side of the account and breakage should be paid for by the pupil. This causes them to exercise greater care. Apparatus broken while a class demonstration is being given should be paid for by the school district.

All cases should be kept locked and material handed out by the instructor. The instructor should be in charge at all times when the laboratory is in use. Pupils should be taught that there is a place for everything and everything should be kept in its place. Desks and material should be kept clean and sanitary. These should be cleaned by the pupils, and should not be left to the janitor. If the class must leave at a certain time, work should be stopped long enough in advance that everything can be cleaned up.

All permanent material such as mounts and slides should be labeled and kept for future reference. Some time during the year an inventory should be made to determine the condition of the laboratory and what material will be needed. A "Want Book" should be kept in a handy place. When material is getting low an item of it should be made when it is learned. Material will then be kept on hand.

Laboratory work need not be as formal as regular classwork but order should be maintained. The pupils will otherwise get but little out of the work.

The Hot Lunch Club

Schools are coming to realize the benefit of a "hot lunch" club. Many children come a long way to school, and they carry their lunches with them. It is much better for growing children if they can have one hot dish with their lunch.

In places where there are not enough members to pay for outside help, members of the club may do the work. The superintendent should appoint two students for each week, or a longer period, and these may attend their classes just the same. Where there are some boys or young children who can not cook, they may be appointed to help wash the dishes and keep the room clean. The superintendent should see that everything is kept in a sanitary condition. He may appoint a member of the faculty having charge of the building during the noon hour, to oversee the hot lunch club during lunch time.

A business manager should be appointed to have charge of the purchasing under the direction of the superintendent. Books should be kept so that the club may know how it stands at all times, and material may be purchased of producers. In some instances, the size of the purchase will warrant asking for discounts from market prices; at other times wholesale prices may be obtained. Material should be

bought outright; if the members of the club furnish it and receive credit it will cause confusion if not friction. In one instance in the writer's knowledge, this did happen and the club ceased to exist in consequence.

Tickets should be sold to the members for a certain amount, and the amount of the purchase should be punched on the ticket. One of the members should be appointed to act as cashier.

Care should be taken to cut down the cost of material. Waste, which is inevitable, should be kept down to a minimum, by careful attention to unsold material. A little attention to the amount sold from day to day will keep the loss from this source low. It is better to lack a little of having enough than to have a large amount left each day. The superintendent should make a canvass of the rooms on stormy days to learn how many extras will be present. Posting the menus on the boards a day in advance, with the prices, will be of interest and help keep up the membership. Prices of material sold must be kept a little above cost as there is often an invisible loss. The material should be placed before the pupils cafeteria style. If there are a large number of patrons, the superintendent should appoint one to punch the tickets. The pupils should eat as soon as school is dismissed. With exceptions as deemed advisable, they should not be allowed to straggle in, but should eat at one time where there is room for them.

Nearly all schools are now equipped with cooking and eating utensils as well as a gas or at least an oil stove. If these are available, this equipment should be purchased by the district. Where equipment is used by outsiders as well as members of the club, the latter should not be compelled to purchase for the community. On the other hand, the community through the district board, should do this for the interests of the children. Such material as matches, oil, towels, etc., should be purchased by the club.

Athletics

Athletics tend to build up school spirit and furnish an outlet for the enthusiasm and tremendous energy of older pupils. With the right kind of management and coaching, bitterness may be eliminated from competitive athletics.

In the small school system, the superintendent should be faculty manager of the athletics. Many boards of education insist upon this. The superintendent should see that athletics are kept as incidental to the work of the schools and should not allow them to usurp a major portion. He should not allow athletics to usurp the large place and the academic work of the school to fill a smaller place.

An athletic association should be formed, with the pupils and the faculty eligible to join. They should be encouraged but not compelled to become members, and the fee should be placed low enough that none are barred. A reduction in price to members should be made for all athletic contests on the home floor or field. The board of control should consist of the faculty and the class presidents, who should make nominations and present them to the school. These nominations should provide for the offices of president and secretary-treasurer, and should be made from dependable leaders in other activities, especially academic. In each instance there should be more than one choice, and election should be by ballot. Connection should be made with the state association where there is one. If there is no constitution one should be made. All meetings should be conducted according to parliamentary rules. The presi-

dent should act as business manager, always under the direction of the superintendent.

A careful set of books should be kept. An auditing of these by outside parties should be made once a year, preferably at the close of the school year. No money should be paid out, purchases made, or contests scheduled without the consent of the superintendent. He should see that all new policies are submitted to the board of control for their ratification. He should see that all contracts are carried out; if they are cancelled he should make sure that it is with the full consent of the other party.

Eligibility lists should be kept in a book used for that purpose alone. It may be a regular class-record book. The superintendent should see that ineligible players are not allowed to compete until the condition is removed. This sometimes develops a disagreeable situation as far as the superintendent is concerned. Sad to say, some coaches are interested only in winning contests and some aggressive members of communities are not interested in eligibility of players as long as the home team can win. This is one place where the superintendent needs courage.

Contests should be managed with courtesy to the visiting team. They should have their own places to change their clothes and confer. Where the officials are from outside and come on the train, they should be met on arrival and taken back to the train. They should not be criticised for decisions even though they have been against the home team. They should be treated in a courteous manner under any and all conditions. The attitude of the manager and the coach toward the officials and the visitors will be reflected by the crowd. If the manager and the coach do not confirm the decisions of the officials, the effect upon the players will be to antagonize them toward all authority in school and outside. Under such conditions athletics had better be discontinued.

Absences

When pupils are absent from school the superintendent should require that teachers obtain excuses from the parents. Occasionally whether there be doubt or not, the parents should be called on the telephone to find out about the authenticity of excuses. Where parents have no telephone they should be visited. It does but little good to mail or send a notice to parents of suspected cases. If the absences were unnecessary those are the cases in which the pupil will get the notice. Without a personal investigation on the part of the superintendent, that is the last that will be heard from that case.

If the excuse is authentic, a written slip may be issued to the pupil in high school or under departmental instruction. This slip should be issued by the principal, or the teacher in charge of attendance under departmental instruction. The pupil should present the slip to each instructor with whom he has classes; the instructor checks the absence as excused, initials the slip, returns it to the pupil before the latter is allowed to re-enter the class. At the close of the day these slips should be returned to the principal, or the teacher in charge of attendance. The instructor may follow the usual procedure in having the pupil make up work missed.

Parents, as well as pupils, should be made to understand that school is important and that children should be allowed to remain away only for good and sufficient reasons. Any pupil absent from class three days should be barred from all classes until an adjustment is made with the instructor from whom he has been absent. Some parents will excuse their children from school for any little thing. The same parents

would discharge help absent or tardy from their place of business as often as their children are from school.

Management of the Playground

Where play is not supervised, the grounds and the equipment should be assigned by the superintendent so that smaller children will have their share; if no assignment is made the weaker suffer. An equitable division into groups according to numbers for recesses, and for periods before school morning and afternoon should be made. The superintendent should direct teachers to see that the assignment of material, equipment, or grounds is observed by the pupils.

Passing and Conduct of Classes

The superintendent should see that pupils pass to and from classes in an orderly manner, and he should also require orderly conduct of classes. Teachers should not allow pupils to lounge in class but insist that they sit up straight and give strict attention. They should not be allowed to lean back in their chairs and face in almost any direction. This practice is disrespectful to the teacher and creates a wrong attitude toward school work in general. *Pupils should be required to sit in front of the instructor and face front.* It frequently takes a poorly disciplined group some time to become settled after leaving a lax instructor, thus the work of the whole school suffers.

Supervision of Classwork

The superintendent should conduct supervisory visits in a businesslike manner. He should have some definite plan or subject matter in mind before making the visit. The work may be carried on by departments. The supervisory work should not be carried on in a haphazard manner; but the superintendent should know what to look for, and what remedies to propose. He should look for things to commend rather than to criticize. He should diagnose the case, and then build on what he finds. He should remember that it requires no special skill to tear down, but that it takes a master to build. If supervisory visits are conducted in this manner the teacher will look forward to them with pleasure.

The superintendent should never make criticisms before the pupils. These should be made to the teacher in private, and should be specific in character. It does no good to say discipline is poor. He should tell just how it is lacking and what remedy to suggest. Almost any teacher will receive criticism if she is asked, "Don't you think it would be better to do it in this way?" The remedy should be proposed. Do not say the instruction is not functioning. Show her just where it is lacking and how it should be changed or improved. The superintendent should conduct one or two recitations to illustrate how he would do it. A teacher who shows no reaction to this treatment should be released at the end of the contract period.

The Budget

We have reached the age where all enterprises, political as well as commercial, see the need of a budget. Regardless of the fun that has been made of the budget system and the criticisms leveled at it, it has come to stay. Great care should be exercised in making it. School boards not accustomed to one are sometimes opposed to adopting the system.

It is part of the work of the superintendent to help the board in the making of the budget. He should know what items are involved and the relative apportionment for each item. The per cent of the total assigned to each item should be determined by its relative importance to the school system, and these are assigned

properly in a scientific budget. Just as a Babcock milk test applied to a herd of untested cows will show some boarders, that is, some that do not pay for their keeping, so a scientific budget applied to the expenditures of a school system will show some parasites. That is, some items will be found with funds in excess of their relative importance.

In school systems where a budget has not been in use the relative amounts required for each department may be determined from expenditures of the preceding year. This does not mean that the several amounts should be determined and then added to determine what should be given each item for the next year. The amounts should be studied to see where they can be reduced *without interfering with the efficiency of the school system.* Some may need to be added to in order to give them a portion in accordance with their relative importance. *Under no conditions should the children be made to suffer.* If the matter is approached sincerely the items can be made to approximate the relative amounts of a scientific budget.

When the total has been determined there is no need for adding to it for an emergency. *If this is done the emergency will always appear.* The amount should be set for each item and each department *made* to get along on the amount assigned to it. The difficulty in making a budget lies in the fact that some one wants every item reduced, except that connected with his department, or he wants other departments reduced first.

Good teachers are necessary to every school system. No matter what the cost of the buildings or equipment, if the teachers are not efficient, the product turned out by the school system will not be well prepared. If a district has not been paying enough salary to get high grade teachers, it is inadvisable to try to procure efficient instructors for less money. This item should be determined first, on account of its relative importance. In a scientific budget, about 66% per cent of the total should be assigned to the faculty, and administrative work comes from an extra 5 per cent. These are the items that are most frequently debated. When other bills are presented they are paid almost without debate or question. However, in these items lies the opportunity to cut the bills with the least, if any, harm to the child. And the child is what this is all for after all.

LO THE POOR EXECUTIVE!

H. E. Stone, Dean of Men, West Virginia University

If the executive is tactful his critics say he lacks spine. If he is fearless he is accused by his enemies of being tactless. If he delegates authority he is said to "pass the buck." If he gains wide popularity he is dubbed a politician. If he devotes the major portion of his time to administrative and executive duties he is condemned for lack of scholarship. If he is guilty of becoming scholarly while holding an administrative position he is indicated for neglect of duty. If he guards the interests of stockholders or taxpayers he is called a tight wad by employees. If he is generous to workers the board of trustees look askance at him. If he tells the public what he is doing he is a seeker after publicity. If he does not, he is charged with concealing the facts. If he spends long hours in his office he is pitted as a slave to detail. If he does not, he is scorned as a parasite and a shirker. If he maintains his family in a manner suitable to his station in life he is a target for radical self appointed representatives of the proletariat. If he insists on demanding frugality and plain living on the part of his family the neighbors offer condolences to his wife. *Lo the poor executive!*

School Bonding in Ohio—Part II.

Jesse L. Ward, Bucyrus, Ohio.

(Continued from March.)

DECREASED SCHOOL REVENUE IN RELATION TO INCREASE IN SCHOOL BONDING

The issuance of notes and deficiency bonds for the payment of operating expenses can only be attributed to the failure of tax receipts to keep pace with expenses. About \$9,000,000 of such indebtedness was reported in 1921, a sum greater than the entire school debt in the year 1900, and more than half of the outstanding debt of 1910. This sum is divided as follows:

TABLE V—Operating Deficits for the Year 1921 ¹	
Deficiency bonds	\$1,904,360
Tuition fund (Teachers' Salaries)	6,636,630
Contingent fund	216,359
Interest fund	173,648

In addition \$2,500,000 of repair and alteration bonds may be ascribed largely to insufficiency of current revenue.²

The Use of Bonds in Financing Permanent Improvements

The use of bonds in financing permanent improvements is, perhaps, the principal cause of the extensive growth in school bonding, and the amount borrowed for this purpose, figures largely in the \$189,734,710 total of bonded indebtedness for the end of the fiscal year, June 30, 1923. Previous to 1911, the expense of buildings and lands was met by building taxes. In the years following, practically all of this expense was met by the issuance of bonds. The school districts omitted from the customary levies for the building fund in order to enlarge their receipts for operating revenue. This accounts for an immense increase in the public school debt. While the total receipts from bonds from the year, 1901-'02 to 1910-'11 amounted to about 80 per cent of the sum spent for buildings and lands, they exceeded these expenditures by practically 15 per cent in the years 1911-'12 to 1918-'19.³

Diagram 11, shows the ratio between the receipts from bond sales and the expenditure for buildings and lands. To 1912, the two trends are proportionate. In the period from 1912 to 1919, the trends show a disproportionate increase in receipts from bond sales and expenditure for buildings and lands. The shaded portion of the diagram shows the extent of this increase in receipts from bond sales above what would have been necessary, had the same ratio existed from 1912 to 1919. The conclusion is, that this acceleration in the rate of school bonding was influenced by the funding of large operating deficits, and the increasing burden of debt service.

Debt Service

The debt service costs in Ohio now amount to as large a sum as that expended for permanent improvements in 1920. The interest and sinking fund charges approximate \$14,000,000, the cost of all buildings and sites in 1920.⁴ This is becoming such a burdensome item, and the need for operating revenue has become so pressing, that in many districts adequate provision has not been made for the retirement of bonds.

In 1921, fifty-four cities reported sinking fund balances of \$6,113,013, against a total indebtedness of \$81,673,839. Thirty-five cities reported a total indebtedness of \$17,193,208 and showed no sinking funds whatever.⁵ If seven of the largest cities are omitted, 47 other cities report sinking fund assets in balances totaling \$705,670 compared with an aggregate debt of \$29,015,549.⁶ The 1922 report of the Auditor

of the State of Ohio, shows the total city school debts to be \$116,400,280, with a total balance in sinking funds of only \$8,757,198.⁷ Thirty-five cities show no sinking funds. This failure to make adequate provision for redemption of a large volume of term bonds is contrary to the plain intention of the constitution of the state.⁸

In Article XII, Section II, The Constitution of State of Ohio, says: "No bonded indebtedness of the state, or any political subdivisions thereof, shall be incurred or renewed, unless, in the legislation under which such indebtedness is incurred or renewed, provision is made for levying and collecting annually by taxation, an amount sufficient to pay the interest on such bonds, and to provide a sinking fund for their final redemption at maturity. (Adopted September 3, 1912.)"

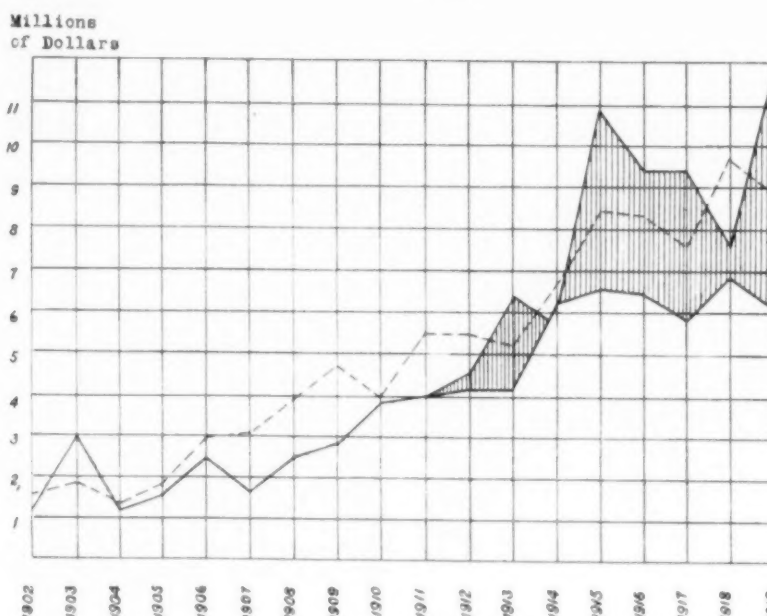


DIAGRAM 11.
(This Diagram is taken from Atkinson's, "The Effects of Tax Limitation Upon Local Finance in Ohio, 1911 to 1922," p. 70.) Graph showing ratio between receipt from bond sales and expenditure for buildings and lands, 1902 to 1919.
— Expenditure for buildings and lands.
— Receipt from sale of bonds.
— Amount of receipts from sales, if ratio of bonds to expenditures for improvements had been the same after 1911, as in the decade 1902 to 1911.
The shaded area represents the difference between the actual receipts from bonds and the receipts which would have been necessary if the ratio of bonds to expenditure for improvements had remained the same after 1911, as in the decade, 1902 to 1911.

Summary

1. Operating deficits in the amount of \$9,000,000 and \$2,500,000 in repair and alteration bonds were reported for Ohio in 1921 by the Auditor of State. This was for school purposes.

2. The receipts from the sale of school bonds has ranged from \$1,000,000 to \$4,000,000 more per year than the expenditure for school buildings and sites per year, in the period, 1912 to 1919. This would indicate the funding of operating deficits.

3. The interest and sinking fund charges at present approximate \$14,000,000 for school debt purposes. This is equal to the cost of all school buildings and sites for the year 1920.

4. Thirty-five cities in Ohio with a total school indebtedness of over \$17,000,000 show no sinking fund balances in the State Auditor's report for 1922. Forty-seven other cities show sinking funds for the same year in a ratio of but 2½ cents to the dollar of indebtedness. This failure to make adequate provision for redemption of bonds is contrary to Article XII, Section II of the Ohio State Constitution.

¹Annual Report of the Auditor of State, Ohio, 1921, pp. 184-7. These cities are: Cleveland, Cincinnati, Columbus, Akron, Dayton, Toledo, and Youngstown.

²Ibid.

³Ohio General Code, Page's Compact Edition, 1920, Section 5649-1; Ohio Constitution, Art. XII, Section 11.

(To Be Concluded.)

INASMUCH AS YE HAVE DONE IT UNTO THE LEAST OF THESE

We are told that during the world war nearly 35,000 American soldiers were killed in battle. We are also told that during that same period of one and one-half years over 91,000 persons met death in street accidents. And as one writer puts it "what is more deplorable, 25,000 of this number were children."

For a number of years, we have rather pathetically described the evils of war. In our schools we have tried to instill into youthful hearts the lesson that war is wrong. And during the greatest war of all history, while we were wondering how and where it would all end, we shuddered at the terrible toll in human lives it was going to claim.

During all this time, however, a silent danger was stalking up and down the land claiming the lives of the treasures of our homes. Many times while quietly playing by the roadside, the little life was crushed out by some vehicle of traffic.

Of course in a very large percentage of cases accidents are directly traceable to careless driving or other violation of the traffic laws. But sometimes these accidents to children are made possible as a result of carelessness upon the part of those whose business it is to look after their welfare.

It is not an uncommon sight to see schools situated along the concrete or "hard" roads, as the hard surfaced roads of our country are called, with no fence or barrier of any kind between the road and the school ground.

This is, of course, a menace to the welfare of those pupils, as in their play they will occasionally wander out into the road after a ball or something used in the game, unless a fence or some sort of obstruction is placed between them and the road.

School boards, it seems to me, would not go far wrong in placing some sort of barrier, probably a wire fence would do, between the school ground and roadway, if their school happens to be located on a road congested with traffic.

Many times teachers are expected to keep pupils off the highway and some people, perhaps, would suggest that this should be sufficient protection. However, to one who has had experience in handling children at play, it does not seem an easy task to have each pupil's

(Concluded on Page 154)

¹Reported to the Auditor of State of Ohio in 1921; taken from the unpublished report of the State Superintendent of Public Instruction of Ohio, 1923.

²Ibid.

³See Table II of this report.

⁴Based upon reports of receipts and expenditures contained in the Annual Reports of the State Superintendent of Public Instruction of Ohio for 1920.

⁵Ibid.

The Effect of Segregation upon School Morale

An Overlooked Outcome of Ability Grouping

Helen Davis, Assistant Psychologist, State Department of Public Instruction, Madison, Wisconsin.

Since the use of intelligence tests in the public schools for purposes of classification has become so general, there have arisen many misgivings in the minds of certain educators and journalists who question, or would lead others to question, the educational philosophy underlying segregation and the outcomes that might possibly develop from its continued practice. Those who object to classification have filled many pages of our popular magazines and professional journals with discussions of the reliability and validity of present testing methods, of the constancy of the I. Q., and of the grave dangers that lurk in an educational system that admits of the possibility that the common man might be deprived of the right to share in the heritage of the race. And more particularly have they become agitated in the contemplation of their own prediction that such a system of educational procedure must inevitably lead to a status in which numbers of the children in our public schools will be retarded in mental growth, "branded for life", with the limits of their development determined for them by some unreliable outside agency; by the same abominable system, a select minority would be trained in a new kind of snobbery, to lord it over their fellows and to conduct themselves as beings superior to the common herd.

Many of these alarmists, however, have overlooked in their discussions two very important considerations. The first of these is the flexibility of the systems of classification that are actually in operation. It is generally and openly admitted by those engaged in the work, that classification by standardized measurements is still in the experimental stages. No one engaged in segregating pupils claims that the results of tests are infallible, and that adjustments made on the basis of tests should be permanent, regardless of other indications to the contrary. As a matter of fact, in nearly every report of experiments in classification there will be found sections devoted to the discussion of the exceptional cases, and to an account of the nature and number of the changes and transfers made, after the classification scheme had been put into operation. According to these accounts, some consideration must always be given to a small percentage of cases in which classroom performance does not approximate the expectation to be inferred from the test results. In such instances, the test ratings are commonly disregarded and pupils are transferred to those groups or classes corresponding more closely with abilities and attainments revealed under classroom conditions. There are, unfortunately, in the field of measurements, as in every other profession, some poorly trained and incompetent workers, whose enthusiasm and lack of adequate training blind them to the limitations of their field; however, no person of judgment and experience fails to recognize the important bearing upon school success of personality and character traits, or to make adequate allowance for them. Surely one is not justified in condemning the whole plan of intelligence testing and ability-grouping because of an occasional mistake by a misguided enthusiast.

The second, and more important consideration, which our critics have overlooked pertains to the children themselves. What precisely has been the effect upon children who have been tested and segregated? What is the exact



nature of the changes made in the kind of instruction given after segregation? There have been many surmises concerning this aspect of the situation, but too little attention has been given to actual observation of the attitudes and interests of the pupils segregated, and to the statements of the children themselves concerning their views of the plan of segregation. In other words, few of our critics apparently have troubled themselves to ascertain what those immediately concerned with this new development in school administration—that is, the teachers, the pupils, and the parents—have to say regarding it. After all, should it not be of importance to know how the common man, he whose future and whose children's future is so perilously at stake, reacts to the mischievous meddlings of the psychologist?

A rather careful and unbiased study of this particular aspect of the testing movement has been carried on during the past four years, in a city of moderate size, which supports a well-organized system of special classes. This system is now operating five kinds of special classes, to which pupils are assigned on the basis of scores in intelligence tests and scholarship records. Most of these classes have been in operation four years—some of them as long as seven years—and the number of pupils in attendance each year is between five and six hundred. In the past four years there have passed under immediate observation some fifteen hundred pupils. Contact with the majority of these pupils has been quite close. It has included frequent observation of classroom work, personal interviews with parents, conferences with teachers, and occasional conversations with the pupils themselves. With this information at hand, then, one should be able to determine, to a reasonable degree of certainty, what has been the effect of segregation upon children classified according to their ratings in intelligence tests, and what has been the reaction of the parents and teachers.

Those opposed to the use of intelligence tests frequently fret over a possibility that teachers, once finding some of their pupils have scored low on a test, will no longer exert themselves to bring these up to grade, or endeavor to give them a thorough and well-rounded education. The development of this kind of attitude on the part of teachers has not been encountered in this system. Both the professional spirit of the teachers and the type of organization, of the special classes make this situation unlikely, if not impossible. If a pupil is doing poor work, upon examination, is found to be of border-line intelligence or below, he is removed to a special class. The teacher of the special class is not only sympathetic and interested in the pupil's individual needs, but she is ambitious for his school success and anxious that he shall attain

the maximum achievement for his capacity. If, on the other hand, a pupil doing poor work proves to be of normal intelligence, he is left in the regular grade. His teacher understands that, through individual help, she is expected to bring him up to at least an average scholarship. The effect of this policy is shown by the remarks of a principal recently about a pupil in her room. "Do you remember Henry B—?" she asked the examiner. "On the intelligence test he got 'C', or average. When we saw that mark, the special help teacher and I both thought there must be something wrong. Henry never in the world got that mark himself. He must have copied. But we kept on working with him, and we would say to ourselves, 'Well, it seems too good for him, but nevertheless *he got it*, so we must try to bring him up to that level'. And now—why you haven't any idea how he has improved! Now we think he is worth *more* than C on his intelligence test." This is only one of many similar instances reported by teachers in the system. "I thought there must be something wrong with the test when you said James could do the work in my room, but now he is doing as well as anyone," or "You'll be surprised to see how much Fannie has improved since she has entered my special class," and similar remarks are characteristic expressions frequently heard. So much for the reactions of teachers when their pupils are tested and segregated. What can be said concerning the reactions of the pupils?

Let us begin with those at the upper end of the intelligence scale. Discussing the education of children of superior native ability, the opponents of classification as an argument against special provision for these children present a rather generally accepted notion, namely, that gifted children come from the best families socially and that consequently, any extra or supplementary education is properly provided for in the home. In a great many cases the assumption that these children represent the more cultured homes of the community is borne out by facts, but it is not universally applicable to all gifted children. It does not necessarily follow, that parents of culture are always interested in, or aware of the pedagogical needs of their children, or competent to prescribe for them.

The story of Paul is an interesting case in point. Paul was a member of an "opportunity room", a class in which gifted children are given an enriched course of study. The boy's rating was high but his home environment was poor. His mother had been divorced and remarried twice, and was the sole support of herself and family. She left for work early in the morning, leaving Paul, a 10-year-old youngster, to rise by the alarm clock and prepare his own breakfast. At noon he went home and prepared his own lunch. After school he went home to an empty house and waited until six o'clock for his mother's return and his evening meal. Not much opportunity for home training in this case! (And Paul was one of six in this room of 36 who were striking exceptions to the common assumption that gifted children come from homes of leisure and wealth.)

And what did the special class do for Paul? A great deal. When he entered, he was a serious problem in discipline. He disrupted the order of the whole room. He was inattentive to work and inclined to focus the attention of the whole class upon himself. He made himself generally

so obnoxious in the special room that the teacher asked that he be returned to the regular grade. In an interview the purposes and privileges of the room, and his responsibilities to it were explained to Paul. He was allowed a week's probation with the understanding that if, at the end of that time, he had not shown a willingness to become a desirable member of the group, he would not be allowed to remain in the room. This happened more than two years ago. Paul remained in the opportunity room three semesters or, until he was promoted to the junior high school. Shortly before he left the opportunity room the teacher commented enthusiastically upon the splendid attitude developed toward his work and his classmates, and spoke regretfully of the fact that he would no longer be a member of her class.

Another contention commonly raised by those opposed to the segregation of gifted children is that superior ability of itself enables these children to progress without stimulus or direction, so that an attempt on the part of the school to discover and develop these children is superfluous. Our experience does not confirm this contention.

One outstanding case was Neal. When first examined, Neal, then in Grade 4B, made a score in a group intelligence test equal to the median for the 6A's in his building. Yet he was not among those mentioned by his teacher as doing very good work. Upon being questioned his teacher explained that he was lazy, indifferent and only of average scholarship. To verify the intelligence rating, Neal was given a Binet examination. In this test, at the age of 9 years, 3 months, he secured a mental age of 15 years, 1 month with a consequent I. Q. of 163. He was large for his age, the picture of health, and a leader of sports on the playground and in the neighborhood. Neal was sent to the "speed school", where he did the work of two years in one. Here he easily outstripped his classmates, who were themselves children of superior ability. Perhaps Neal could have made the same amount of progress had he been left to himself, but the fact remains that he did not until someone showed him what he could and should do when he exerted himself.

Stuart was another gifted child who had not learned to direct his own progress. An intelligence test revealed that he possessed superior ability, although his scholarship was only average. The teacher explained that, while he probably had natural ability, his truancy was so pronounced that he was unable to do his work successfully. Stuart was sent to the "speed school", where he not only covered the work of two semesters in one, but also, without pressure from any source, made very decided and satisfactory improvement in his attendance record.

Ada was recommended by her teacher for examination for an auxiliary or special help room—a class designed for backward but not strictly feeble-minded children; had it not been for a mental test, she probably would have been sent there. At the time she was given the Binet examination she did have some difficulty with reading, but her mental age was more than a year in advance of her chronological age. Needless to say, she was not sent to an auxiliary class. Her intelligence rating was reported to her teacher, the help of her mother was solicited, and she was given special help in reading at home and at school. When the case was first referred for examination, Ada's score in the Monroe reading test was: Comprehension, 3 (standard 7.7) and rate, 57 (standard 116). At the end of six months, when another form of that test was given, her comprehension score was 15 (standard 9.8) and rate score 193 (standard 142). On the basis of these results, she was sent to the "speed school" where she did the

work of two semesters in one, and there was no question about her competency for the work there. It is interesting to speculate on what would have been Ada's school progress, had her ability not been detected by an intelligence test, or if she had been classified in the school system according to the judgments of her teachers. Here, then, was a pupil destined by a perfectly conscientious teacher to become a member of a sub-normal class, who through the use of psychological tests, was discovered capable of developing into a competent member of a super-normal class.

This brings to mind the case of another child in a different school system, who was reported by his teacher as being slightly subnormal and a candidate for the deaf school. According to the teacher's report, the child suffered periodically from defective hearing, understanding the questions she asked him at times, but on other days requesting a repetition of every question before he understood well enough to answer. Examination revealed that the boy had normal hearing and an intelligence quotient of 150! Yet neither teacher nor principal in that school had been able to diagnose the case as that of a very superior child so bored that he refused to listen to the trifling subject matter daily offered to challenge his attention and interest! What a boon the psychological test proved to be to this boy!

Let us briefly touch upon one other aspect of the education of gifted children, namely, what they are taught. Are they learning daily, as some critics would have us believe, that they are superior children, destined to be the leaders of their generation, the chosen few, "heaven-sent to lead their dull fellows"? Are they continually entertained with dazzling accounts of their superior endowments and achievements? Hardly! What gross ignorance of the real situation displayed when these critics would have one believe that these children are being "trained", as they put it, "in snobbery and conceit". Actually, their teachers hold daily before them ideals of loyalty, industry, sincerity, tact, sympathy and sociability. They instill in them a realization that with increased opportunities and privileges, come increased responsibilities. We have yet to learn of a single case where a transfer to a special class *per se* developed conceit in a gifted child, although accounts are numerous describing the salutary effects of segregation upon children who showed undesirable traits of egotism previous to their transfer. An over-developed sense of self-importance in a gifted child can usually be traced directly to a foolish, doting parent or relative, and not to any contacts the child may have had with other children.

But it may be that the segregation of the dull pupils rather than of the bright ones entails injustice and engenders disheartening attitudes among pupils. The sub-normal pupils in the ungraded rooms some would have us believe are hapless, abused, and misunderstood children whom the psychologist has "branded for life". Perhaps some of these children are branded for life but it is not the responsibility of the psychologist. The branding was accomplished long before he entered upon the scene.

The experience of a mental examiner may illustrate this point more clearly. "I was examining kindergarten children not long ago", the examiner relates, "and when I had finished with Gladys, I asked her to bring Thelma, the next one on my list, to me. In a few moments Gladys appeared with Thelma, but instead of returning to her room, she seated herself in a chair as if she intended to remain until the test was finished. 'You may go now, Gladys,' I said. But Gladys seemed hesitant. 'Then I'll

come after her when you are through," she said. "Oh, that won't be necessary," I explained. "She can find her way back to the room all right." Gladys rose reluctantly and prepared to leave, but when she reached the doorway she turned once more, and with a look as knowing as her mother might have given me, she explained in an aside "But I guess I *had* better come back for her, because—well, she really *doesn't* know anything." Kindergartners, passing judgment on each other's ability! And Gladys was not the only discerning child who had discovered that Thelma "really doesn't know anything." All the other children in the room knew it too. Who of us cannot remember some unfortunate, over-age child of our own school days who was always pointed out as the dunce, or the boy who was promoted only because he had outgrown the seat in his room? Who branded these children, the school psychologist with his mental tests, or their classmates? Are we doing these children an unspeakable injury when we put them where they no longer are the daily butt of jests for scoffers and supercilious schoolmates? Are we branding them, or protecting them? If pupils are chagrined because they are in an ungraded room, or if they do not find something vital in the work, how can we explain the fact that often they remain voluntarily after they have passed the compulsory age limit? There are numerous cases on record of boys and girls enrolled in ungraded rooms who chose to continue in attendance, even after they had reached the age at which the state permitted them to leave. We know of a colored boy, for example, who remained in an ungraded room until he was past 19—so old that he finally had to be dismissed in order that a younger child might have his place. This boy has visited the school several times since he was dismissed, and on one occasion remarked to the teacher, "I love this room because it is the only place where I ever was treated white."

It is a generally accepted principle that pupils do better work when they are happy and interested, but how can they be happy and interested when they flounder hopelessly in a grade too advanced for them? Ruth's case illustrates this principle quite strikingly. When she was examined, she was in the third grade; her I.Q. was 70, and her mental age was about equal to that of a pupil in the high first grade. After overcoming strenuous objections on the part of the mother, Ruth was transferred to the ungraded room. It so happened that Ruth's teacher in the third grade had been transferred to the ungraded work, with the result that Ruth came under her observation in both types of room. This teacher reported a marked change in Ruth's attitude after her transfer to the ungraded class. In the regular grade the child had been sullen, had done poor work, disliked school, and cheated on every occasion. But after entering the ungraded room, and given the type of work of which she was capable, her attitude was completely changed; she no longer cheated or copied, but became an interested and happy child.

But perhaps it is not the education of the obviously feeble-minded that concerns the objectors for even they will admit, when pressed to it, that there are some children who profit negligibly by instruction with normal pupils. Some differentiation must be allowed for mentally defective pupils, of course, but it is the dull child, the somewhat-below-normal pupil whose education these critics feel is being restricted and whose career is being fatalistically determined. These are the ones that we psychologists forsooth say the school can do little or nothing for; it is these, presumably, that we are tossing up on the academic waste heap with

the excuse that a pint measure will hold no more than a pint, a truly deplorable state of affairs, and one indeed demanding violent protest,—if it existed. What is really done for these children in schools that are farsighted enough to make special provision for them? They are put in the care of well-trained, sympathetic teachers. They are instructed in groups small enough that each pupil may receive all the individual attention he needs. They are taken from a regular grade room where their teachers of necessity have come to look upon them as pedagogically well-nigh impossible problems, and are sent to teachers who have the time and technique to develop their possibilities. In the special room the pressure of unfair competition is removed; the emphasis is shifted from a given amount covered in a given time regardless of quality, to a given amount done well, regardless of time. Do our objectors think a pupil's education is assured only when he is seated with pupils of average ability in a regular grade room? Do they believe that his mere presence among normal children secures him a liberal education, although during class discussions he may understand almost nothing? Do they regard it as undemocratic to analyze individual differences and prescribe for them? Surely pupils are transferred from the regular to the special class not that they shall get less, but more. And that they do get more no one can deny who has taken the trouble to make even a superficial investigation. A few cases in point.

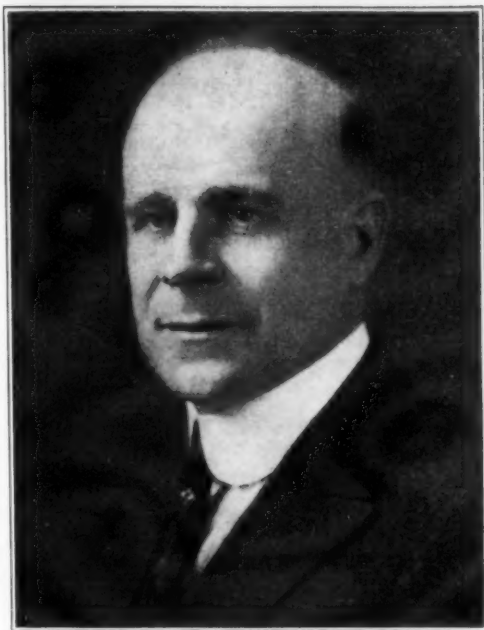
Joe was sent to one of the special rooms after expulsion from a parochial school. He came to the public school as a serious problem in discipline, which had culminated in his cursing the Sister and striking her in the presence of his classmates. Joe was old for his grade, mentally retarded, and particularly deficient in memory. He confessed that he had been truant and insubordinate at the parochial school because he was expected to master certain lessons. Joe was put in a special-help class. Within a few weeks his attitude was entirely changed, and he caused not a particle of trouble either in discipline or attendance. Why? Because he was no longer required to perform mental tasks of which he was incapable.

Ralph resented it when he was transferred to a special room of the sort just described, but six weeks later he told his teacher, with a beaming countenance, how glad he was that he had come. Never before had he secured a scholarship rating above C, and rarely above D, but in the special room he was getting B's, and even an occasional A.

Jim, who had been a year or more in a special-help room but who had since been transferred to a regular room, was observed one noon taking an out-of-town friend about the building. When he came to the special-help room he took particular pains to show his friend some of the things the children were doing in the room and to describe the nature of the work. In the course of the tour about the room he was overheard to say: "I'll tell you every boy in this school ought to have a chance in one of these rooms."

That not only the pupils, but their parents as well, understand and appreciate the aims of the special-help room is illustrated by the few cases cited below.

Harry entered a special class under protest both from himself and his parents. After he had been in the room a few weeks his parents came to visit. At the close of the recitation, his mother asked the teacher, "Does Harry always volunteer in class here as much as he did today?" "Why, yes," the teacher said. "That is the way Harry recites every day." "Well," replied his mother, "Harry has been through five grades, but I never knew him before to ask a



WILL C. WOOD,
State Superintendent of California, who declined the
State Superintendency of Pennsylvania.

Will Christopher Wood was appointed State Superintendent of Public Instruction for Pennsylvania by Governor Pinchot to succeed Dr. J. George Becht, who retired owing to ill health, and then declined the honor. Mr. Wood served as state superintendent of California for the past six years. His administration has been a most efficient one and in some respects even brilliant. In defense of the educational interests of his state, he openly defied Governor Richardson, and crossed swords with that official with great dash and courage.

The jump from a Pacific-Coast state, where everything is dealt with in the superlative, to a conservative state like Pennsylvania is a long one. California pays its superintendent \$5,000 a year. Pennsylvania pays \$12,000. "Undoubtedly Mr. Wood's qualifications impress the governor, else he would not go so far afield, with good material at home," says a Philadelphia newspaper. "But, without anywise reflecting upon appointer or appointee, an overwhelming majority of our 10,000,000 people are 'from Missouri' and want to be shown."

Dr. J. George Becht succeeded Dr. F. P. Finegan, who had come over from New York State, and who was dropped by Governor Pinchot in 1923. There is a bill in the Pennsylvania legislature providing a pension for Dr. Becht.

question in class or to say anything when he wasn't asked."

Norman's parents were very indignant over his transfer and made it known in no uncertain terms. Later, however, the mother wrote a note of appreciation to the teacher, saying she could see an improvement in Norman's work. He was taking a new interest in school, and was beginning to read books and newspapers that he found at home. And as concrete evidence of their appreciation and good will, at the time of the Christmas party which the room gave, Norman's father, unsolicited, brought a Christmas tree and all the ornaments, and Norman's mother sent a large cake and a plate of fudge.

Alfred's mother, who had also been somewhat suspicious of the school authorities when her son was put in the special room, later wrote this note to the teacher when the family moved into another district: "We have moved to 1000 C—Street, but we do not wish to have Alfred transferred as he has went to both of the schools and he learns nothing. He has learnt more in a month there with you than in three years anywhere else."

It may be said that the cases which have been cited in this paper are not typical, but only the most striking ones chosen to support our contention. They are indeed the most striking cases in the sense that they are those in which the objections of parent, teacher, or pupil were, at the outset, the most serious and the most difficult to overcome, and hence a change in attitude or an expression of appreciation makes them more worthy of mention. They are, however, by no means all the cases that might be found in this one school system to illustrate how effectively the special class may operate not only to meet the pedagogical needs of the maladjusted child, but also to serve as one means of correcting certain types of personality and behaviour difficulties. To further emphasize

the extent and efficacy of the special class, as a means of bringing about favorable changes in the attitudes and habits of the maladjusted pupil, let us quote the very significant statement made by the supervisor of attendance in the school system from which most of these cases have been drawn. After three years of experience in the system, this attendance officer was led to declare that *ninety per cent of all the cases of chronic truancy were cured when the children were transferred to special classes*. When we consider that truancy is the mother of delinquency, this statement makes us further realize how vital a part the special class may play in the protection and guidance of the youth of a community.

We are firmly convinced, then, that segregation, or ability-grouping, based upon the results of intelligence tests, when carried out with reasonable care and common sense, and when combined with suitable adaptations of methods and subject matter, has a decidedly beneficial effect upon the attitudes and habits of the pupils segregated. As a result of segregation, we have in the vast majority of cases, seen indifference change to active interest, sullenness give way to a spirit of good-will and co-operation, and chagrin and failure yield to self-confidence and success. What greater service can the school render a community than this—to provide for its children a proper environment where they may develop healthy attitudes of mind toward the everyday tasks of their lives?

KNOCKING A COMPETITOR'S TEXTBOOKS

At the recent adoption of high school textbooks by the Louisiana state department of education, a new rule was carried out which tends to put a curb on the indiscriminate criticism by publishers' representatives of "the other fellow's books".

The rule which was promulgated by State Superintendent T. H. Harris provides that publishers' representatives who desire to pass criticisms on the books of a rival house must give due notice of such a procedure.

A stenographer is instructed to take a verbatim note of the criticism and make three copies of the same. One copy goes to the examiners of the textbooks, one to the publisher of the competing textbook, and one to the house whose representative offered the criticism.

In commenting on the action taken by the Louisiana board of education, a leading educational publishing house gave out a statement in which the following paragraph appears:

"This new ruling was seen to be as important as it was novel. As a matter of fact the reputable standard publishing houses submit what are good standard texts. There are, of course, marked differences in content and method of texts. Organization, presentation and style all differ. But there are surely set standards of judgment for texts in any field and these are known alike to the competent school person and to the able representative. A dignified, intelligent presentation of the merits of the text which induced the publishing firm to accept it for publication in the first place was what the Louisiana authorities were requesting of the textbook publishers. Defamation of competing texts was replaced by the putting forward of the text presented on the basis of the solid merits which it possessed. It will be an interesting thing to see the comment and discussion which the action of the Louisiana state department of education will awaken. It would seem surely that both the school authorities and the publishers should be in accord in agreeing that the elimination of the practice of knocking competing texts in the schoolbook field will mark a milestone in both the business ethics and business efficiency of those concerned.

Forecasting School Population

Fred Engelhardt, University of Minnesota.

To determine the future educational needs and the kind and type of service to be rendered by the public schools requires primarily a knowledge of the trends and growth of our school population. The future population to be served must be known in terms of numbers and composition. Every available technique that will help must be brought to bear upon the solution of this problem.

The forces affecting population change are quite involved and intricate and seem at first to be very difficult to analyze. In the long run, however, the events that materially affect the population change can be anticipated more or less accurately. The changes that cannot be anticipated are less numerous than is generally supposed. The forces that are influencing population change today are the same forces that were acting in the past and in all probability will be the determining factors in the future. With present knowledge any estimates made in anticipating growth in school population may be subject to gross errors. This fact is self evident when it is realized that it has only been during recent years that comparable statistical data relative to school population has been available and especially since school records are only now beginning to be at all reliable, accurate or adequate. Yet as the study of the problem continues and the technique develops more accurate results can be hoped for.

In spite of these difficulties, school administrators have tried to forecast their educational programs on the basis of an analysis of future school population growth. It is the purpose of this study to review some of these and illustrate the application of a mathematical analysis to this complex problem. At the present time every precaution should be taken to view the results in the forecasting of school population in terms of the probable limits of exactness. The technique used, and the reliability of the available statistical data and the complexity of the problem are important matters to be considered. The school superintendent should not rely on any one method. He should approach the problem from as many angles as he can. He should then proceed to diagnose his situation in terms of the results so secured.

Among the most important recent plans for studying school population growth are the techniques developed by Teachers College, Columbia University, and that developed by the Research Bureau and Superintendent of Buildings in Minneapolis, Minnesota. Teachers College has developed in their public school surveys a comprehensive dot-and-trend map technique. This technique has been used very extensively in all the building surveys made by Teachers College and has been adopted by others in the recent school surveys that have been made. Chart I illustrates the type of dot map used in their technique.

Minneapolis has after an intensive study of local conditions derived a series of school population indices for unit city areas for the city of Minneapolis. These indices have been determined for the different type of district within the city and can be applied directly to the growing and developing areas in forecasting educational needs for these areas.

The most thorough studies in forecasting population growth have been made by the Bell Telephone System.¹ The Bell System maintains a staff of engineers who are continuously at work on this problem. Their studies are

¹"Population Estimating," F. H. Sterns, Bell Telephone Quarterly, January, 1924.

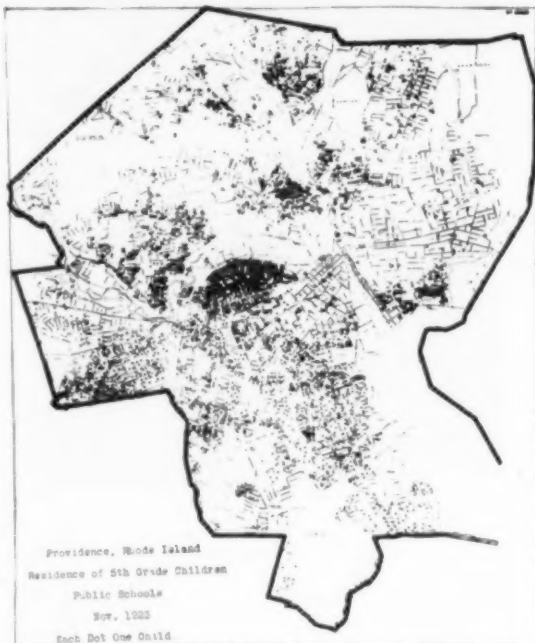


CHART I.

based upon a mathematical analysis of the Federal Census in determining trends, and intensive population and economic studies made locally throughout the country. Local house count surveys are made in each large city and by counties in rural districts. These surveys are made by the local telephone engineer's staff. Industrial and economic conditions are also studied along with analysis of the movements and compositions of the local population. These local studies are coordinated with studies made in the central offices. The trends developed by the central office are corrected or modified for different localities in terms of the findings of the local surveys.

The findings of the Bell System have been made available to school administrators. The "Bell" data has been used in various school building surveys such as Philadelphia, Baltimore, and Atlanta. Various modifications of the Bell technique have been adapted by superintendents as a basis for the solution of their local problems.

Factors Affecting Population Change

Changes in population in any community are affected by those four general causes:

- (1) Births; (2) deaths; (3) migration; (4) population change through additions or loss of land areas.

Changes in the birth or death rates in a community take place very gradually. Age and race materially affect this rate. The development in reliability of our vital statistics makes it possible to study changes and trends in these two factors more or less accurately. Changes in the number of people migrating to and from one community or country to another are not so gradual. Such changes may take place very rapidly or suddenly. The distribution of the sexes and age groups in this migratory population is, however, relatively constant. This is shown in Table I. The changes in the rate of increase of the population in any community is variously affected by the resultant interaction of these three causes. The following Table II

TABLE I
Age and Sex Distribution of the Migratory Population
(Bell Telephone Estimates)

Age Group	Male	Female
Under 10	1	1
10-19	13	17
20-29	43	45
30-39	30	26
40-49	12	7
50 and over	1	4

shows the factors that are most influential in bringing about the various rate of population growth. In all studies of population change one must give due consideration to cases where the expansion of the limits of a community adds to its population.

TABLE II
Main Factors Causing Varying Percentage Change in Population Growth During Any One Decade

Change Per Cent	Cause
Decrease	—Emigration exceeds the natural increase.
0 7—Increase	—Growths are almost entirely due to natural increases. Emigration to other communities more than balances the natural increase.
7 15—Increase	—Nearly all gains are due to natural increase. Fluctuations in the birth or death rate will be immediately reflected in the rate of growth. Migration factors not important.
15 22—Increase	—Gains in population are due both to the natural increase and to net immigration. Gains from natural causes probably larger.
Over 22—Increase	—Large part of growth due to immigration.

School Population

School population is an element of the total population. Unlike the total population, however, school population is defined differently in different localities. Its definition usually depends upon the educational problem being considered. School population is defined in terms of the age group for which school census is taken, and the various phases of enrollment, or attendance. Uniformity in definition and nomenclature is gradually being brought about, although at the present time there is considerable variation in the legal school age group throughout the country.

The dominating factor that directly affects school population growth is that of survivorship in the pre-school and school age group. Table III is an extract from the survivorship table developed by the Bell Telephone System. This table gives the average survivorship percentage for native white children between 0-9 years of age and 10-19 years of age for the decade census periods ending in 1890, 1900, 1910, and 1920. The table also gives the estimated average survivorship rates for the decades ending in 1930 and 1940. The table reads as follows: On the average 97 out of every 100 native white male children between the ages 0-9 who were enumerated on the 1920 census will be alive when the 1930 census is taken.

TABLE III.
Decade Survivorship Rates (Native White)

Age Group	1890-1920		1920-1930		1930-1940	
	Male	Female	Male	Female	Male	Female
0-9	97	98	97	98	98	98
10-19	94	97	94	97	95	97

Migration of school population may be of three kinds; first those moving about from one community to another; second the influx of foreign population; third those moving about within the city. Relatively few children of school age are brought to this country from foreign countries. This fact is shown in the case of a few selected cities in Table IV. Moving

TABLE IV
Percentage of the 5-14 Year Old Children Born in a Foreign Country in Certain Selected Cities.
1920 Federal Census

City	Total	5-14 Year Old Children Per Cent	
		Foreign Born	Foreign Born
Atlanta	34,541	156	.004
Bridgeport	25,971	1548	.059
Denver	36,889	935	.025
Grand Rapids	24,424	891	.036
Louisville	38,137	167	.004
Lynn	16,440	840	.051
Newark	80,135	4059	.052
Oakland	32,637	1334	.041
Rochester	49,565	3135	.063
Springfield	20,984	1014	.048
Wilmington	18,522	455	.025
Worcester	31,818	1621	.051

about of families within a community makes the school population problem more complex. Each of these elements of the problem can be solved by the study of trends.

The relative moving about with the state of the native white population is illustrated in Table V.

TABLE V
Percentage of Native-Born Population Living in the State in Which They Were Born

Cities	Total Population	Per Cent of Native Population in State of Residence	
		1920	1910
Eastern			
Reading, Pa.	107,784	96.2	96.6
Seranton, Pa.	137,783	93.6	91.6
Syracuse, N. Y.	171,717	90.8	92.1
Rochester, N. Y.	205,750	89.4	89.9
Worcester, Mass.	179,754	82.8	81.5
Springfield, Mass.	129,614	67.1	67.9
Providence, R. I.	237,595	75.9	72.5
Western			
Grand Rapids, Mich.	137,634	81.7	80.4
Cleveland O.	796,841	74.2	81.1
Indianapolis, Ind.	314,194	68.4	69.8
Kansas City, Mo.	324,410	44.7	42.0
Minneapolis, Minn.	380,582	63.5	60.7
Seattle, Wash.	315,312	30.8	22.5
Oakland, Calif.	216,261	57.3	58.9
Southern			
Atlanta, Ga.	200,616	78.1	78.8
Louisville, Ky.	234,891	81.1	81.7
Richmond, Va.	171,667	62.5	73.2

With the increasing accuracy and reliability of our school records there is no reason why survivorship tables cannot be developed from the various single age groups of the school population. Trend tables for the migratory population should also be made available for school administrators.

School population changes are not only influenced or modified by the forces affecting total population. The following factors also play an important role in determining the school population totals.

1. Changes in educational legislation.
2. Changes in enforcement of laws.
3. Consolidation of school districts.
4. Reorganization of schools (kindergarten-junior high school).
5. Changes in attitude toward parochial and private schools.

In a well organized school system the records can be so kept that trends and changes due to these factors can be anticipated. Even these elements do not normally occur suddenly or rapidly. In all forecasts of school population these factors should be given due consideration.

As has already been pointed out the various methods used in forecasting population rely on an analysis of the federal census and the school census. There is one advantage in the forecasting of school population and that is that the school census can be made available each year. It has been pointed out again and again in all studies in child accounting that school censuses are not taken as carefully and accurately as they should be.

The fact that school population is augmented mostly by natural growth by the children entering school from the pre-school age group makes it rather essential that this group of children be included in all school census enumerations. Table VI shows for a group of selected cities how the enrollment may be variously affected by natural growth.

TABLE VI
Number of Children in Each Age Group, Federal Census—1920

City	AGE				
	Under 1	1	2	3	4
Baltimore ..	14,852	13,576	13,921	13,973	13,214
Cleveland ..	16,610	17,979	18,349	18,158	17,337
Des Moines ..	2,137	2,224	2,236	2,315	2,258
Detroit ..	22,268	23,668	23,100	22,337	20,744
Los Angeles ..	7,549	7,681	7,725	7,668	7,505
St. Louis ..	11,163	11,613	12,008	11,899	12,020

It is likewise important that census be summarized by single age groups. This will permit checking each decade with the federal census. It will likewise help to show trends as well as provide the basis upon which a survivorship table for single age groups of school children can be calculated.

TABLE VII
Showing the Consistency Between the Number of Children of Each Age Between 5-14 as Enumerated in the School Census

Age	New Haven, Conn.				Grand Rapids, Mich.			
	1910	1920	1921	1922	1921	1922	1923	1924
5	2,622	3,044	3,887	3,707	2,936	2,796	2,916	
6	2,583	3,523	3,626	3,772	2,830	2,997	2,950	
7	2,532	3,383	3,773	3,571	2,788	2,850	3,018	
8	2,581	3,241	3,603	3,691	2,695	2,787	2,878	
9	2,433	3,190	3,399	3,481	2,604	2,715	2,871	
10	2,488	3,212	3,359	3,352	2,507	2,688	2,820	
11	2,307	2,830	3,260	3,117	2,474	2,553	2,734	
12	2,332	2,921	3,143	3,346	2,463	2,551	2,613	
13	2,323	2,888	3,055	3,016	2,549	2,473	2,588	
14	2,246	2,718	2,981	3,017	2,417	2,563	2,535	

Table VIII shows how the federal census for the 5-14 year old group checks with the school census in Springfield, Mass., Providence, R. I., and New Haven, Conn., for the year 1900, 1910 and 1920.

TABLE VIII
Relationship Between the Total Population and the 5-15 Year Old Group, Federal Census and the Relationship Between the Total Population and the School Census

City	Year	Population	Percentage 5-14 Year Old Group Is of Total Population	
			Federal Census	School Census
Providence	1900	175,597	16.70	16.54
	1910	224,326	16.50	16.55
	1920	237,595	17.90	18.51
Springfield	1890	44,164	16.40	16.02
	1900	62,059	16.92	16.52
	1910	88,926	15.92	15.21
New Haven	1920	129,338	16.10	17.60
	1910	133,605	18.20	18.31
	1920	162,537	19.21	19.42

Relation Between Total Population and School Population

School population is not only an element of the total population but bears a definite relationship to it (See Table VIII). Changes in this relationship can normally be expected to be gradual. The accuracy with which the school population can be predicted will depend largely on how accurately the total population can be anticipated. Total population statistics are available every ten years. In some states these data are also available every five years. The school population statistics are usually available yearly. To use the average percentage relationship between school population and total population for several decade periods as the basis for determining future school population may be subject to gross error. A change in school law or administrative practice may have suddenly changed the school population during any one of these census years. This change might have an undue weight in determining the average, as is shown in Table IX. It is important, there-

TABLE IX
Relation Between Enrollment and Total Population

Year	Springfield, Mass.			Newark, N. J.		
	Total Population	Enrollment	Per Cent	Total Population	Enrollment	Per Cent
1880	33,340	5,865	17.5	136,400	18,548	13.5
1890	44,179	6,455	14.6	181,130	25,137	13.8
1900	62,059	11,261	17.8	246,070	34,761	14.1
1910	88,926	15,576	17.5	347,469	57,742	16.6
1920	129,164	22,648	17.5	414,524	76,149	18.3

fore that there be available some way to estimate the total population for the inter-decade census years. Probably the best way to do this would be by some mathematical method.

Mathematical Method of Forecasting School Population

When a problem can be expressed in measured terms, or mathematically, it can be analyzed more intelligently and solved more rapidly. If it be true that fluctuations can only be adequately understood and treated when they are analyzed by mathematical conceptions, then what is needed is a mathematical picture of the whole course of growth of the school population in a school district. In other words, a mathematical expression or an equation which will express the fundamental law of population growth would be of great help.

The official school records are the only materials available to exploit mathematically. The lack of a standardized nomenclature, differences in definition of ages and difficulties involved in census enumeration are all forces that enter in to make the problem more complex. The complexity of the problem and the present status of educational statistics are not arguments against the mathematical analysis of such

data. In reality, the only method that will insure greater uniformity and reliability in the data made available is that method which points out to those responsible practical uses that can be made of the records they are keeping.

Many population predictions have assumed that the population grows arithmetically or geometrically. Population for inter-censal periods have been determined by this method and the curve is then projected beyond the last known census. Estimates for years beyond the last known census dates are determined by extrapolating from the projected curve. The following formula has been frequently used in determining the inter-censal population: $b = \sqrt[n]{a \cdot c}$. The use of this formula assumes that the percentage increase in population in successive years form a geometric series. The formula

$$b = \frac{a - c}{2} \text{ and its use in the determination of}$$

population in inter-censal periods is likewise based on the assumptions that the rate of increase in population in successive years form an arithmetic series.

Population Growth Is Not Constant

The rate of population growth is not necessarily constant over any considerable period of time. If the rate at which the population is growing be constant, then the curve passing through the successive value of population is a curve which is concave upward.

The best way to estimate the total population for inter-censal years is to derive the equation that will best represent the curve of population growth by ordinary methods of curve fitting. Then by extrapolating from the curve determine the population for the years desired. This method does not permit of the projection of the curve beyond the last known census. The school population for these years would be known either in terms of the school census or enrollment. The percentage relationship between the school population and total population for a consecutive number of years could thus be determined. Table X shows the application of this method to the total population of Providence, R. I., and net enrollment for the years 1911-1920.

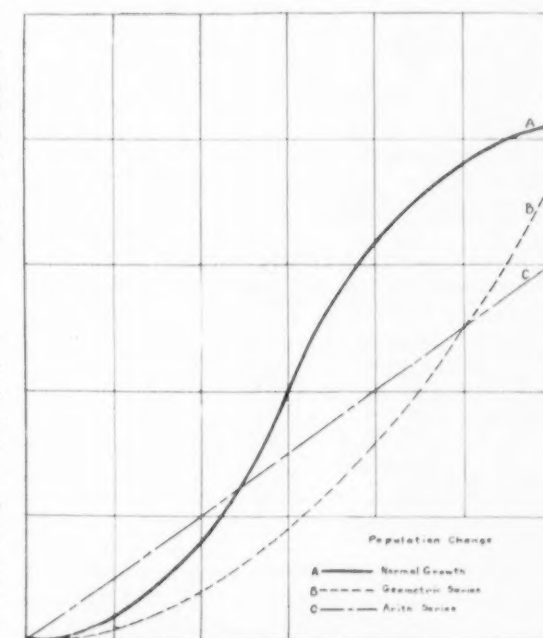


CHART 2.

The best mathematical studies of population growth have been made in recent years by Professor Raymond Pearl and Professor Lowell J. Reed of Johns Hopkins University.² They have developed a new theory of population growth. This method of attack does not assume

²Metron, Vol. III, N. 1; VII, 1923.

The Department of Superintendence at Cincinnati

The convention of the Department of Superintendence, at Cincinnati, February 21-28, set several new records which will be hard to surpass. The meeting was the largest in the history of the Department; the actual number and standing of men and women who participated in the program was greater than at any previous convention; the topics discussed included practically every phase of education, from the college to the pre-school period of childhood. The professional tone reflected a splendid scientific attitude, as well as hard-headed practical experience of superintendents. The physical conditions of meeting places and railroad accommodations, were well nigh perfect; hotel accommodations and weather left much to be desired. President William McAndrew never failed to put his audience in a happy, receptive mood. All in all, the meeting was a great success such as only the Department of Superintendence can enjoy.

It would be difficult to single out a single general topic which seemed to dominate the meetings. On Monday morning the fundamentals of superintendence and professional administration were the general topics of discussion. On Tuesday, the necessity for individualizing instruction overshadowed the balance of the programs and conferences. On Wednesday, curriculum-making, particularly, the aspects of organizing and carrying on revisions of the curriculum, were preeminent in importance. On Thursday morning, the general session was shocked out of its complacency by Supt. Boynton's well-directed criticism of the colleges, and in the afternoon and evening of the same day the convention ended in a happy glow of light and music, contributed by a concert and a pageant, in which an interesting chorus of Indianapolis teachers and Cincinnati children participated.

The Program

"Why and What Are Superintendents?" were discussions presented on Monday morning by Supt. Jesse H. Newlon of Denver and Supt. Chas. S. Meek of Toledo. The progress which superintendence has made was restated in a paper, read for Hon. Payson Smith of Massachusetts. The meeting was opened by President McAndrew who, in his inimitable way, restated fundamental principles which control American education, and called upon superintendents for valiant service in the administration and supervision of the schools. Supt. Newlon, in discussing the reasons for superintendence, spoke of the need of having a directive head for so important a business as education. He also called for courage in leadership on the part of the superintendent. "Principle is above position, and the superintendency requires a high type of unselfish professional leadership." Mr. Charles S. Meek has an incisive, and at times, ironical approach to educational problems, and his discussion of the nature of superintendence alternately caused his audience to smile and to applaud at his thorough-going analysis of the major and minor functions of the superintendent's office.

Mr. Payson Smith introduced his subject with an historical discussion of the rise and growth of the superintendency and concluded with a very strong discussion of the qualities which the superintendent must possess, and the duties which he must assume in carrying on his work. He argued that the superintendent must have a strong faith in his work, and must be guided by a strong sense of justice, courage and intelligence. He must keep a clear perspective of his work, and temper his acts with a saving sense of wisdom and avoid extremes. He must not only cooperate with his associates but obtain cooperation from all concerned. He must recognize that frankness and sincerity are essential in carrying on any and all of his work.

On Monday afternoon, the Department broke up into five groups, each to discuss a group of problems suggested by significant extracts from the preamble of the American constitution.



DR. FRANK W. BALLOU,
President, Department of Superintendence,
Washington, D. C.

While these meetings were exceptionally valuable and brought forward speakers and topics as important as those at the general sessions, there seemed to be a lack of unity and interest such as has been found in the group meetings based on the population of cities.

Probably the most important statement of the entire group of meetings was the plea for justice in high places made by Asst. Supt. A. C. Perry, Jr., of New York City. "Justice must be done," said Mr. Perry, "to the pupil, for him alone the school exists. The rights of teachers are only those of the pupils. It is because of the impairing of the efficiency of the service to pupils that offenses against pupils are considered. If pupils are entitled to proper teaching by the teachers, the principals are entitled to leadership from the superintendent. The superintendent is entitled to cooperation from the school board and the school board is entitled to support from the community and the state." Other papers that aroused considerable interest included discussions of equality of educational opportunity by Dr. John J. Tigert, of Washington, Supt. A. F. Harman of Montgomery, Ala., and Supt. E. W. Butterfield of New Hampshire.

On Monday evening, the entire convention heard but one address on Outlawry of War, by Col. Raymond Robbins, of Chicago.

Another constructive paper of Monday afternoon was that by Mr. H. C. Weber, of Nashville, Tenn., who presented the argument for the all-year school from the standpoint of his own experience in successfully carrying on twelve months' schools in a community, where there is considerable hot weather from the end of May until the end of September. Nashville has found that 64 per cent of its entire enrollment will attend school in the summer and 86 per cent of the teachers can be employed. The summer work is in every way as efficient as that of the conventional nine months' term.

A very interesting discussion of public school work from the standpoint of a newspaper man was presented by Mr. Erie C. Hopwood, editor of the Cleveland Plaindealer. Mr. Hopwood has apparently become thoroughly saturated with the constant recurrence of crime, human failings and moral breakdowns, and is skeptical, perhaps even cynical, in his entire attitude toward human affairs and toward education. His extremely clever discussion of social conditions, as affected by education reflect a type of thinking which admits of no definite system of morality, no law, no truth in human matters—except public opinion.

The Tuesday Meetings

Eleven seven-minute papers, each written from the standpoint of a recent achievement in

a specific field of school endeavor were read on Tuesday morning. Supt. Frank Ballou, of Washington, D. C., restated the nine specific recommendations on research work which have been accepted by the Washington board of education. Supt. Carleton B. Gibson, of Savannah, Ga., told how his community is seeking to get a dollar's worth of education for every dollar expended. Supt. W. W. Borden, of South Bend, discussed the vocational information which is used in shaping the courses of students in the junior and senior high schools. Supt. H. C. Johnson, of San Diego, described the valuable service which the central school library of San Diego is rendering to the schools and to the community at large, by furnishing literature to the schools and to the people, and by providing museum specimens.

Miss Olive M. Jones, of New York City, impressed her audience with a plea for the proposed homes of retired teachers. Both men and women teachers who arrive at an age when they are no longer fitted to teach, present a peculiarly pathetic problem in human adjustment. They want no charity and rarely seek sympathy. They are greatly in need of happy intellectual and social contacts which cannot be provided in the average hotel or boarding house. Many of them lack business experience and require some protection and guidance in caring for their estates. Well-managed homes for retired teachers will afford companionship, care, and security that will solve a very real and difficult problem.

Supt. H. S. West, of Baltimore, Md., outlined the interesting program which is being carried out in Baltimore for rehabilitating the school plant. A total of \$22,000,000 is being spent and 23 new buildings are being erected.

The need for personnel work on a scientific basis was discussed by Supt. E. E. Lewis, of Flint, Mich. Mr. Lewis has been doing unique work in adapting to the schools personnel methods which have been found successful in industry, and in working out in the Flint school system many original ideas for evaluating the personal characteristics of teachers and adapting them to school jobs. Mr. Lewis believes that the innate capacities of teachers and their interests must be analyzed and utilized. He argues that jobs must be analyzed and that teachers and jobs must be harmonized and constantly adjusted.

Prof. George D. Strayer, of Teachers College, took an extreme viewpoint on the coordinate functions exercised by business managers of city school systems. He made a very essential point that the superintendent must be the chief executive official of the schools and educational interests must control, rather than the fetish of business efficiency.

The Wednesday Sessions

Curriculum problems occupied the center of interest on Wednesday morning. Under the chairmanship of E. C. Broome, superintendent of schools of Philadelphia, members of the commission on curriculum building from the viewpoint of the commission and in the light of studies which have been undertaken. There was no evidence that the group has changed its viewpoint concerning any of the fundamental principles of American education or has accepted any radically new ideas. The development of religious instruction in smaller cities and the implied attention to direct moral training which this involves has apparently not been considered by the commission. The several addresses seemed to hold to the idea that curriculum-revision is an important essential at this time, and that the problem be attacked scientifically both from the standpoint of general principles and methods, as well as local adaptations and needs. Dr. Charles H. Judd, of the University of Chicago, introduced the subject. Prof. Ernest Horn, of the University of Iowa, showed how the numerous scientific findings which have

come from objective studies of such subjects as reading and spelling, will eliminate artificial elements and make possible the application of a successful technique. Mr. Horn showed that every successful undertaking in scientific study must set up a basic hypothesis, must use a correct method of attack for obtaining objective data, and must add critical judgments in order that facts may be readily interpreted and generalization may be dependable. Dean John W. Withers, of New York University, argued that irreducible objectives and contents must be set up and local variables depending upon local conditions must be added to complete school courses. Asst. Supt. A. L. Threlkeld, of Denver, described the processes which have been found successful in revising the Denver curriculum. Supt. Z. E. Scott, of Springfield, Mass., closed the discussion.

Dr. Boynton on College Education

The general subject "What Can the Colleges Do for the Public Schools?" was on the program Thursday morning. Dr. Wm. L. Bryant presented the matter from the standpoint of the college and Mr. E. G. Doudna of Madison, Wisconsin, took it up from the standpoint of the general schoolman. Supt. Frank G. Boynton placed the rather academic discussions which preceded his paper in the shadow, by attacking fearlessly the work of the colleges and condemning their smug, academic self-sufficiency. He said in part:

"There is probably no point at which the assumption, widely prevalent in the academic world, that the great majority of the candidates for admission to college are unfit, comes so sharply to the fore as in the matter of entrance requirements. There must be some method of determining which candidates for higher education are capable of profiting by it; but to us who deal with the present system and its administration, the query naturally presents itself whether it represents the best that the intelligence of the colleges can achieve. Most, if not all, universities set no general entrance requirements, leaving it to each college within the university to determine its own. Thus, it happens that a candidate admitted to one college may be rejected by another in the same institution, a condition entirely justifiable where the content of the curriculum in a given college is such as to require special preparation in particular subjects. But so wide is the divergence, not only between colleges of different types within the same institution, but between colleges of the same type in the same or different states, that one wonders whether college entrance depends upon a sound educational basis of essential secondary studies necessary for higher study, or upon the personal opinion of some individual group in an isolated institution. So careful is this idiosyncrasy guarded that a student in one college, no matter how thoroughly he may have proved his capacity for college work, may not transfer to another college of the same type until he has made good the special entrance requirement of the second.

Ridiculous Entrance Requirements

"These statements are not unwarranted conclusions from isolated instances. They are based upon the experiences of school men in every state of the union. A few specific instances gleaned from my correspondence with more than two hundred representative schoolmen will prove interesting: A candidate coming from a large city high school where every teacher is a college graduate and where this candidate has won distinction, presents a note book in botany admirable in every respect; but he is denied admission because the fungi studied were not the specific fungi prescribed by the professor of botany in that particular institution. Again: A state scholarship student is denied admission because in one study of a four-year course a state examiner had given a rating of 74 per cent while the college required 75 per cent. That is to say, a scholarship candidate is rejected upon his failure to meet 1/100th of 1/15th, or 1/1500th of a requirement fixed by local idiosyncrasy. Another: A man old enough at entrance to have been a graduate, is admitted with a condition. Three years pass and he has proved his capability to do college work by the only certain method, namely, by doing it. Then someone remembers that back in the high school this scholarly, mature man had failed to pass something and he is summarily dropped. These are not exceptional cases. Similar sacrifices to inflexibility are

happening all about us; and wherever the application of entrance requirements is entrusted to persons who are guided by the 'letter that killeth' rather than by the spirit that takes into account the elements of the human problem involved we may confidently expect their continuous repetition.

"Nor, is this confusion and uncertainty about college entrance requirements confirmed to candidates for admission. It exists in college faculties. It is not surprising, therefore, that college alumni teaching in high schools distant from college centers should be unable to keep pace with their rapid mutations.

"To the candidate, the results are frequently little short of tragic. The school boy's conception of college is usually derived from some alumnus whose knowledge, dimmed by years, has given place to a childish and fictitious reminiscence of a glory that never existed. His going away to college may be his first venture into the great world outside his native town. To his friends, probably none of them college graduates, he may seem a person of distinction. They may have given him a dinner and accompanied him to his train. In his heart is the same confident regard for his school that the college alumnus feels for his Alma Mater. Did not the paid college professor who made the commencement address speak of its known excellence? He approaches the secretary's office with confidence and is told to his amazement, and chagrin, that he cannot enter. What is he to do? He is among strangers, his funds are limited. One superintendent who went with his candidate to an Eastern University, writes that boys by the hundred met this fate that year; that he saw them break down and weep, boys who would not run away from physical danger. In the preparation of this paper I have been in correspondence with 94 colleges. Nine of these refused admission to 7,942 candidates during the past four years. So long as college courses continue to be developed over a comparatively narrow field, and so long as college authorities continue to assume arbitrarily, that the only fit candidate for higher instruction is the one who has completed an arbitrarily set number of units from an arbitrarily designated group of studies little relief can be expected from the above conditions. It would seem that fitness to pursue a college course is less a matter of meeting quantitative requirements than it is of possessing high level of intelligence, superior facility in reading and in oral and written speech, good habits of study and thought, and earnestness of purpose. Finding satisfactory methods for testing these qualifications is admittedly a more difficult task than adding up units of work. Excellence in scholarship is not always an index of ability or worth. Two boys from the same high school enter the same college. One without scholastic honors, the other at the head of the class. One is graduated without ever having taken a single scholastic honor; the other has been ornamented with all the keys and scholarships within the gift of the college. Ten years later, the man without college honors is the general manager of a concern in which the 'intellectual aristocrat' earns his daily bread by counting the firm's cancelled checks."

Poor Teaching

Existing conditions are responsible for the poor teaching in our colleges. The wonder is that there is so much good teaching in view of the fact that on the one hand so little effort is made by way of supervision to eliminate or improve the poor teachers, and on the other hand so little incentive is offered in the form of professional advancement as a reward for good teaching. Academic scholarship is the sole basis for entering upon college teaching. Professional training in the art of teaching is practically never required, and in some college circles, laughed at. Academic advancement depends not upon teaching ability, but upon so-called "productive scholarship," that is, upon published research. Emphasis should be laid upon teaching in the undergraduate school, and superior ability in teaching made the basis of professional reward leaving to the graduate school the function of productive scholarship.

Not long ago I attended the history classes in an Eastern college. The professor was eminent in his own right and the son of eminence. An office opened out of the large lecture room and into this we entered. At my request, I passed in to the lecture room a little before the hour of the lecture. When the door opened men by the hundred filed into the room; they came over the tops of the benches and, at the close of the lecture, returned by the same route. On the stroke of the clock, the professor entered the room without apparently seeing anyone and for one hour read a most interesting manuscript,

and left the room on the stroke of the clock. The professor told me that whatever was necessary would be done by his assistant, a graduate student studying for an advanced degree. He said that he had no time for the individual student; that he knew nothing of their problems and cared nothing; that he was a professor of history and not a social worker; that his classes were so large that knowledge of the individual was quite impossible, anyway; and then he had so many other things to do. As his guest, I had opportunity to guide the conversation and in this manner to learn several things which I desired to know. He showed me his library and how he wrote books; we talked about lecturing of which he did much for large honorariums; he showed me his work as a surveyor of a school system. On my own investigation, I found that the number of students registered in that institution per number of the instructing staff was nine, which made large classes merely a matter of professorial convenience and not a necessity; my host lectured five hours per week, or less than one school-day; he said that he used the same lectures from year to year bringing them up to date when necessary; that he arranged his teaching so as to leave him several days free each week; that he sometimes arranged these so as to bring his teaching at the last of one week and the first of the next which arrangement gave him double free time; and yet, this distinguished professor had no time to be human as a teacher; he could find no time to become interested in the men whom the public innocently and trustingly supposed he was working over time and endangering his health to train in order that they might be filled with the necessary knowledge to assume those problems of the great democracy of which they were parts. I have no objection to a teacher being an author. I have no objection to him being a lecturer or a surveyor of other schools, and I recognize that productive scholarship is indispensable if civilization is to advance. But these activities, important as they are, should never be permitted anywhere at the expense of teaching, the superior of them all and as such should form the basis for promotion and reward.

Arbitrary Courses

To all this must be added that college courses in cultural subjects, both in subject and content, are arbitrarily determined by individual professors. This statement is made upon information obtained from the colleges themselves. Whether the subject is Shakespeare or Mother Goose may depend upon the professor's breakfast. Not only does he determine the subject and content, but he sets his own final examinations for advancement from term to term and upon his own rating of the answer papers the student remains or leaves college. In those rare cases where he is required to submit his courses to the department in which he works, it is generally a perfunctory formality without meaning; and instances in which the whole college faculty seriously considers the courses to be set and their contents are still more rare. In a word, the college professor is a despot—benevolent or petty as the case may be, not infrequently using scholarship grades as a means of discipline.

So far is this independence of the individual instructor carried that where, because of heavy registration in a given course, it becomes necessary to divide the class into sections under different instructors, it is no uncommon thing to find the instruction varying in objective to such an extent that with difficulty and only with the aid of the college catalog is one able to connect the different sections with the same course. That there is a science and art of teaching seems not yet to have become a part of collegiate knowledge. The policy seemed to be: Each instructor for himself and let the final examination clear the way for a new start.

Finally, there is the fetish of "residence." A few years ago, a high school girl, having completed the four-year course in three years, entered the state scholarship examinations and received upon state authority not only the highest rating in her district but one of the very highest in the state. But the head of the board of award was an eminent classical scholar who had had it drilled into him in college that "residence" was important. Notwithstanding that on the basis of superior scholarship this girl had won, she was denied the \$400 scholarship on the ground that she had not spent the required four years in high school. In another instance: A young man had planned to spend some time with his father in the last term of his senior year, and for this purpose had run several hours ahead of his course. In the middle of his senior year he had 115 of the required 120 hours for graduation as set down in the college catalog. And

then came from the dean's office this senseless letter: "Mr. Blank: It will be necessary for you to make twelve semester hours this last term or you will not be graduated." In no other field is industry and ability penalized and a premium put upon dawdling.

Rightly or wrongly the college has come to be recognized by the public as the head of our educational system, a belief which has been encouraged not a little by the colleges themselves through the part which they have played in shaping secondary school courses, writing school textbooks, preparing teachers, making school surveys, manning educational commissions, etc. From the very earliest beginnings, first the colonies and then the states, and later the federal government, have aided and encouraged education. Vast properties used for higher educational purposes have been and are exempted

from bearing any of the financial burdens of government, and countless acres of the public domain have been set aside and appropriations made for higher education.

To consider as a "private" institution any American college endowed as they have been with no thought of class distinction or private gain by public spirited citizens from funds accumulated from profits which in the last analysis the public has paid, and attended as they are by students from every state in the union—to call such institutions "private" would be funny if it were not socially so pernicious. The vested right of the public in all of our colleges can no longer be questioned.

Within the last few years the public has been stimulated to spend large sums of money "surveying" local and state school systems. With a

(Continued on Page 130)

The Hick Superintendent at Cincinnati

Dear Editor:

I didn't see you at the Convention, so I thought I had better drop you a line or two and tell you what a great time I had. It was the greatest educational gathering the world has ever witnessed, and I feel sorry for those who had to stay home. They missed something worth while.

It was raining when I reached Cincinnati Sunday evening so I went directly to Hotel Plowland. Mr. Quinlan, whose address is care of the Chamber of Commerce, allotted me a room there last August, but when I saw where I was to stay, I got sore. I tell you the truth, when I say they tried to pack three of us into a room that was worse than anything in the Old Commercial here in Happy Valley. I refused to accept the reservation and went to look for something else. I ran across Phil Harmon who was in at the Business Men's Club and he made room for a cot for me. I never was in a hotel that beat the Club. Folks here at home won't believe me when I tell them it has the Central beaten by a mile. The floors were made of walnut and there was running ice water in each room. If you needed a clean shirt or your suit pressed, all you had to do was to place the soiled ones in a little closet in your door, and next morning you would find them already to put on when you woke up. There was even a bottle opener chained to the wall over the wash basin in the bath room. In fact, from what my wife tells me, it was just like her uncle's house in California.

As soon as I got settled at the Club I strolled up to the Gibson and met a lot of folks that I got acquainted with last year at Chicago. The lobby was jammed full of people and I enjoyed watching the way small town superintendents shook hands with book agents and supply men. And I also enjoyed listening to book agents telling small town superintendents where there were to be openings in the spring. If all the superintendents get all the jobs that book agents have promised to swing this spring, the entire educational force of the nation will undergo a greater change than the Teapot Dome investigating committee hoped to see among the G. O. P. a year ago.

I'll not try to tell you about the speeches at the big meeting for they were not very interesting. And besides, you can read what they said in print next year. I guess the people who make those speeches at the big meeting make them because they want their patrons to know they have a national reputation among educators, and not because anyone likes to hear them talk. This isn't true of all of them of course. For instance, Superintendent McAndrews makes everyone laugh whenever he speaks, whether he says anything or not. I bet he is a big enough man to swing the superintendency of Brown County and make a success of it, which isn't true of all city educators. Most of them are in

the city because they couldn't handle a country job. That's the only way I can explain why city superintendents are so different from rural school workers.

I spent a lot of time at the exhibits, and will you believe it, I do not recall seeing a booth of any note that I was not looking for, because of their advertising in the School Board Journal. I tell you there is a lot of truth in what they say about Nationally Advertised Goods. That's the kind to use, just the same as the rut to use on a muddy road is the one that is deep and everyone else has used. Those people who try to make a track of their own, always get stuck in the ditch.

The meetings of the Department of Rural Education were great. Between Professor Macy Campbell, who was president this year, and Miss Mabel Carney, the secretary, the department had a battery that would make any team win. I think this rural department is one of the wonders of the last decade. Less than ten years ago, not more than a score or two of rural workers attended the winter meetings, but this year the large auditorium at the G. A. R. Memorial Hall would not accommodate the many hundreds of ruralites that gathered to study the problems connected with giving the boys and girls on the farm an education equal to that which other children receive.

The topic discussed at the first meeting of the Rural Department concerned the economic background of rural education, and it was pretty generally conceded that better rural schools will not come until the farmer has solved some of his troubles. Aaron Sapiro, of Farm Co-operative fame, was the principal speaker and he pointed out that although farmers often produced great wealth in a certain county, the money never reached the county where the goods were produced. For example, the raisin growers of a certain region produced \$12,000,000 worth of raisins every year, but only \$3,000,000 reached the producers. Since they have organized, almost all of the \$12,000,000 has reached them. Sapiro maintains that co-operatives mean wealthier farmers, wealthier farmers mean better schools, and so this is one solution of the rural school problem. He made a great plea for instruction in co-operatives to be given in every school in the land.

The program on Wednesday was sort of an experience meeting for Consolidationists, but I am not one of them, so I will not tell you what was said. I have nothing against consolidation of rural schools, but I have a lot of nice things to say for the One-Teacher School. She is the fellow who needs a friend. Year after year, in spite of all kinds of abuse, the one teacher school has been doing yeoman service, and has received nothing but insults for thanks.

If one should ask me to name the keynote of the Rural Department meetings this year, I

think I would say it was "service to the community." We are trying to develop schools that will serve the needs of rural people and not schools that are city schools in the country. That is what Will Moore is trying to do in Randolph County, Indiana, and Mrs. F. C. Beverley is doing at the Whitmell Farm Life School at Whitmell, Va. Their schools serve their communities.

I think there was only one session of the main program worth telling you about, and that was Thursday morning when school superintendents began to say what they thought about colleges. However, it was left to Frank D. Boynton, Superintendent of schools of Ithaca, N. Y., to tell the college presidents where to get off at. What he did not say about college professors and college regulations and college teaching could not be printed. He certainly said a lot of hot stuff and I'd like to repeat it, but the papers were full of his speech next day, so you probably read all about it before this time. I bet when Mr. Boynton got back to Ithaca, none of the Cornell faculty were at the station to welcome him home. But he got his name in the papers and that is more than what happened to 14,000 other delegates besides myself.

The music and the programs provided at the big meetings were the most wonderful ever presented at a winter meeting. Four hundred teachers from Indianapolis played hockey one afternoon and came down to Cincinnati and sang for us. They sang "On the Banks of the Wabash" so sweetly that I thought it was hay-time again. Funny thing about those Indianapolis teachers, some of them did not have their hair bobbed, and still they were good looking.

The Pageant of Joy presented by more than two thousand elementary school children was the most wonderful thing I ever saw. A steady procession of joyous children romped across the stage for two full hours and each little tot expressed joy in an unmistakable manner. It was a wonderful sight, a masterpiece, and those who attended that meeting experienced a wonderful afternoon. It was without doubt the best thing in the whole convention.

Wednesday morning I took the trolley and went for a ride over into Kentucky. I wanted to see some blue grass and some lonesome pines. I thought maybe, too, I might see a Kentucky belle and sniff some Kentucky rye. But I was badly disappointed. All I saw were a few hand painted girls. The trolley crosses the Ohio River just about where Eliza in Uncle Tom's Cabin ran across on the ice. I could never understand why Eliza did not use the Delaware the same as George Washington did. But she didn't. On the Cincinnati side of the river I saw scores of black children which I suppose are descendants of Eliza. Probably they boast that their ancestors came over on the ice, not the Mayflower.

I stopped over a day in Chicago on my way home and took in the town. That's a great place. I rode in one of those street buses for one hour and seventeen minutes and it only cost me a dime. And then I came back to the Loop on another street and it took almost as long and the price was the same. At the corner of State and Adams Streets I noticed this sign "One was Killed Here." I asked a man sitting next to men in the bus what that meant and he said he did not know whether it meant a school board member or a prohibition officer. Neither jobs are much desired in Chicago, he tells me.

When I got home late Sunday afternoon, I found the folks fine, and that evening the president of the New Century Club asked me to speak at their meeting on Wednesday and tell them all the splendid things she was sure I must have enjoyed while on such a wonderful trip.

That's All,

Dave Malcolm.

The Superintendent and Teacher Improvement

C. E. Hagie, Superintendent of Schools, Wrangell, Alaska.

A great deal of interest has been manifest in recent years over self-rating schemes designed to accomplish the improvement of teachers in service. Undoubtedly no small amount of good has been accomplished by inducing teachers to think about themselves in concrete terms, but the old adage continues to be true, that "you can lead a horse to water but you can't make him drink." You can always place the self-rating score card in the teacher's hand and suggest that it may contain valuable hints. The teacher may or may not take the matter up with a serious purpose to profit by it, depending upon the teacher and the mood she happens to be in at the time. Many teachers proceed immediately to forget that there ever was such a thing as teacher self-rating. It still remains true that there is just one sure way of reaching all teachers from the standpoint of training in service, and that is by direct, sympathetic, constructive supervision by a professionally trained superintendent, supervisor, or principal.

Intelligent supervision requires careful analysis along definite and well thought-out lines. The day is past when this could be done without definite objectives and without system. The supervisor must have some standardized formula upon which to base observation if his work is to reach a maximum of efficiency. It is also necessary that he be supplied with a satisfactory means of recording his estimate of the teacher's efficiency according to the various aspects of her work as covered by the formula. This record must be in a permanent form available for comparison with subsequent ratings for noting progress along the lines of improvement suggested, as well as for recommendation purposes.

From the standpoint of increasing the efficiency of our public schools there is probably no work the superintendent does that is more far-reaching in its effects than is the task of rating and recommending teachers. To perform the task honestly, and without fear or favor, is to build for the future. To falter, or to weaken, in this regard is to jeopardize the interests of the succeeding generation. The superintendent who will pass the poor teacher on, with his indorsement, is violating his most sacred trust. He is doing the very thing which will most certainly undermine the efficiency of our entire educational system, for no one can doubt that the classroom teacher is the very soul of the institution.

It is the superintendent's duty to know what constitutes a superior or a poor teacher. He must weed out the poor teachers in his system or, if they have potentialities, he must train them to become good teachers. Above all else, he is honor bound to give a frank and honest estimate of the teacher's efficiency to others who would employ her services in the same capacity. For the purpose of training teachers in service and for teacher rating purposes, it is absolutely essential that the superintendent have a definitely tabulated set of criteria. The data secured should be placed on file for use in helping the teacher to overcome her faults, as well as to form the basis for future recommendation.

At this time of the year when teachers are preparing for the "annual migration" superintendents are forced to begin the gathering of data regarding candidates to fill up the gaps left in the ranks. Nearly every superintendent has a definite blank form which he sends out for the purpose of collecting the data which is to form the basis of his judgment in making the new selections. It is needless to say that a great deal may depend upon the scope covered in this questionnaire.

Teacher agencies have discovered that in order to get results these questionnaires must be brief, to the point, and not too technical. Otherwise, many may be so incompletely filled out as to be practically valueless for the purpose intended, or they may not be returned at all. There seems to be no such thing as general standardization along this line at the present time. Unquestionably many of the blank forms now in use could be very materially improved upon by a little thought and by comparison with those in use elsewhere.

The forms appended are the result of considerable research study and are being used with much satisfaction by the writer in the schools under his supervision. They are not submitted with any idea that they represent perfection, but merely that they may contain food for thought.

WRANGELL PUBLIC SCHOOLS Office of the Superintendent Wrangell, Alaska

..... is an applicant for a teaching position in the Wrangell Public Schools. Your name has been given as a reference. We shall appreciate a frank statement of your opinion as to the applicant's qualifications along the lines indicated below. Please supply just such information as you would wish under similar circumstances.

Thanking you in anticipation of an early reply, I am

Very truly yours,

C. E. HAGIE,
Superintendent.

1. Has applicant been under your personal observation?
2. In what work?
Please classify in terms of Poor, Fair, Good, and Superior.
3. Teaching Success, measured by pupil progress
4. Type of Cooperation with those in authority
5. Type of Cooperation with fellow teachers
6. Success in Discipline
7. Physical Condition

The trip was worth all its cost, and more, wasn't it? Good fellowship began on the station platform, long before the "Schoolmen's Special" steamed round the curve—good fellowship and good work. From this side and that one heard discussions on "How can we get maximum use out of school buildings so that no room is vacant at any time, while pupils are in the gym, the laboratory, the workshop?" "Unconscious discipline through extra-curricular activities," "Pupil-teacher relationships," and other subjects.

Organizations change from year to year, in appearance, in aims, in accomplishment. The Department of Superintendence has changed much during the past decade. Today it is the great exception when one sees there a man who looks worried, underpaid, apologetic. The present day superintendent is a finer man physically, he is better groomed, better poised (partly because he is better groomed), a bigger man, more forward-looking, than he ever was before.

The "old maid school teacher" is a pathos of the past. The more mature women in the department take their places easily beside the men as leaders; the younger ones show in their faces and manner that they are going to set a pace that will call out the resources of the schoolmen of the next decade if they want to keep up with the procession.

It would be interesting if we could have an

8. Personality
 9. Professional Interest
 10. Interest in Student Activities
 11. Personal Influence in School and Community
 12. If all teachers were grouped into four classes on the basis of superiority in which class would you place this teacher?
- Signature
- Position
- Date

WRANGELL PUBLIC SCHOOLS

Teacher Rating Sheet for Superintendent's Use
Name of Teacher.....Work Taught.....

PROFESSIONAL QUALITIES

	5	4	3	2	1
Results Achieved: (with pupils) (30 points)					
1. Study Habits					
2. Moral Attitudes					
3. Civic Cooperation					
4. General Deportment					
5. Scholastic Progress					
6. Attitude Toward Work					
Professional Attitudes: (25 points)					
1. Professional Interest					
2. Growth under Supervision					
3. Cooperation with Administration					
4. Cooperation with Fellow Teachers					
5. Vision of Opportunity for Service					
Technical Skill: (20 points)					
1. Success in Discipline					
2. Command of Pupil Interest					
3. Organization of Materials					
4. Methods Applied to Instruction					
Community Services: (15 points)					
1. Standing with Parents					
2. Cooperation with Community					
3. Weight of Exemplary Influence					
Personalities: (10 points)					
1. Tactful Aggressiveness					
2. Dependability and Punctuality					
Totals					
Rating					

PERSONAL QUALITIES

Character:	
Disposition	
Civic Attitudes	
Personal Morals	
Personal Ideals	
Personal Habits	
Attitude toward Religion	
Physical:	
Physical Defects	
General Vitality	
Past Health Record	
Physical and Mental Energy	
Totals	
Note—No teacher should be retained in this system who falls below "4" in any of the personal qualities under Character.	
Columns represent, consecutively, Superior (5), Good (4), Average (3), Fair (2), Poor (1).	
Rating Done By	Date
No. 4A	

The Cincinnati Meeting

A Superintendent's Wife.

educational Rip Van Winkle wake up and express himself on the Cincinnati program. When he taught he taught the three R's; and he taught them with a bur-r-r. In his day there was no such thing as unconscious discipline. It was a very conscious procedure. Discipline meant pain, too often cruelty. The boy who was caught drawing was flogged; the girl who made a fanciful bit out of a treasured scrap of colored paper saw her prized source of pleasure go into the fire. The child who put a wild rose into a bottle and set it on her desk took a risk. But we have changed. We begin to comprehend when President McAndrew says "music, art, and happiness are fundamentals of education."

The old-time program wasted no time nor space in inspiring quotations from Washington, Jefferson, Franklin, and the rest. Yet how much they enriched the program of last week. The presiding officer of that day took no pains to keep before his audience such mottoes as "School is for Service, not for self."

Old Rip was severe with the dreamer who listened to a bird's song. Music, in all its forms was a criminal waste of time. Last week thousands of superintendents thought it highly worth while to listen to the musical treat for which the department is indebted to the Indianapolis Teachers' Chorus.

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Banker Hazzard Follows Through

A Peacevale School Story

William Estabrook Chancellor.

For fifteen years Frank Rodman Hazzard had sat in school board meetings, taking his defeats quietly, scarcely helped by any victories. Back in 1908, the aristocratic second ward had sent him to the old board that met like a legislature, with separate desks for every member and the president on a platform ruling in parliamentary style. Then came the reforms of 1912, when the eighteen ward members were succeeded by eight members elected at large, half of them every two years, and all holding four-year terms, after the first election.

Hazzard was then cashier of the family bank and 45 years old. He lived with his father, "Old Mayor Hazzard", in the great mansion on the edge of the business district, and his wife ran the home. Grandfather Hazzard was then president of the bank and also of the Peacevale Iron and Steel Company, the largest industrial corporation of the city, which was at once a manufacturing community and a trading center for a wide agricultural area.

At the second meeting in March, 1923, Banker Hazzard, now president of the First National and chairman of the board of directors of the Peacevale I. & S. Company, was making a report for himself and Carl Brock, who had been appointed by the president of the board, Fred Jonge, to select a new school superintendent. Forty years ago Fred had been bell boy at Hotel Monopole; now, he owned the cigar counter there, a half interest in a second-hand book store, the equities in a dozen old houses, what he styled "a string of race horses", being anywhere from two to five, cash balances in several banks, securities variously alleged to be worth from fifty to five hundred thousand dollars. He had a wife and seven children, was chairman of the county executive committee of a political party, weighed twice as much as Banker Hazzard, and smiled tolerantly as "the little old man" began his report.

"Gentlemen and Miss Thomas," said the bank-president board member, "a certain pride in the city of my forefathers for not a few generations makes me hesitate to tell you what our main difficulty was at Magellan University; yet without understanding this main difficulty, it might be hard to understand the nomination that we submit. The authorities of Magellan were quite unwilling to advise some of those whom they called 'our best graduate students' to try this position of ours; they said: 'Peacevale is a graveyard of superintendents.'"

"My secretary at the bank has made eight copies in duplicate of the history of the Peacevale superintendency since John Timgaly came in back in 1872. Father was Mayor then."

Saying this, he handed about the long table of the board a document of which this is a copy. Fred Jonge did not even glance at it.

"Necrology of the Peacevale Superintendency."
1888 John Timagly retired, dying in 1897.
1910 'Old Dad Pringle' died after a year of invalidism.
1912 Albert Gleason Davis resigned to accept \$1,000 higher salary at Silers.
1914 C. Busby Church resigned to pursue graduate studies.
1916 Wimby Johnson was demoted to an elementary principalship.
1919 'Colonel' Richard T. Deems died suddenly in his office, being 72 years of age.
1922 George Zelotes Fleet was demoted to a junior high school principalship.
1923 Philip Van Winkler urges his release in order to return to his elementary school principalship at Polk Street School."

Six board members gave more or less attention to the document. Herbert C. Dowlings, merchant, lifelong friend of Hazzard, ran his eyes over it. Young Lawyer Charles Williams read it closely, and said to Carl Brock, realtor, "There's more to be read between the lines." Carl chuckled as usual, "So, so!" Old Pat Hoge, retired contractor and politician, held it firmly in wrinkled hands. Young Jim Kimmons, restaurateur with seven eating houses of which the chief was "The Brown Bowl", whispered every item to himself as though reviewing a menu in a strange language, which in truth English was to him. Julia Thomas, labor leader and employe in the composing room of The Press, studied every item and said to Banker Hazzard: "Nice, clean copy, this."

Whereupon Hazzard resumed his report. "Mr. Brock and I argued that the right man could solve the Peacevale riddle, and that the business of a graduate school of education is to supply men able to solve just such riddles. So the appointment secretary brought out the index card of Hillman Ross. I hand to you copies of the main items of interest to us on this card."

The banker then distributed about the table a document like this:

Ross, Hillman: seventh of the eight siblings of Alexander Murchie Ross, D. D., and of Maria Louisa Berger.

Graduate four-year high school. Arnold College, B. A., 1912.

Taught in high schools, 1912-17.

Second lieutenant, first lieutenant, captain, adjutant of regiment, 1917-1919. Overseas fifteen months. Honorable discharge.

High school principalship, Glen Springs, 1919-21.

Married Luella Wheeler, 1917. Two children, born 1921 and 1923.

Entered Magellan, September, 1921, M. A., 1922.

Played football at Arnold.

Height 6' 1". Weight 188 lb. Blond. Blue eyes.

Never had serious illness.

The seven men paid more or less attention to this record.

Then Hazzard drew from his coat pocket pictures of Hillman Ross, Luella and the older child. The six men looked them over. Miss Thomas remarked, "She looks very young indeed, very young."

"She is," explained Carl Brock. "Mrs. Ross is six years younger than her husband. Her uncle brought her up with five other boys and girls, after her parents died. Her uncle gave to her \$1,000 to help along while Ross was getting his graduate work done. She is a Georgia girl, and Captain Ross met her at the officers' training camp."

"One more casualty," remarked Lawyer Williams. "Just like my own."

"Oh, I don't know about that," said Hazzard, drily. "My notion is to review the probabilities

of situations, then take up the personalities involved. Most soldiers survive even in modern wars; most young husbands are faithful to their young wives. And they were both good stock. Mr. Brock and I saw each of them. He teaches in evening school to help get along. They live in two rooms, and though the baby is only a month old, the wife seemed to be getting along well. Please understand; she is opposed to their coming here. She says that she wishes Hillman to stay until he gets his doctor's degree, which means a year or two longer. She says that her 'dear uncle John' will see them through, he's like that."

"Well," broke in Fred Jonge, "why didn't you let them stay? Perhaps, that would be best for Peacevale also."

"When Hillman Ross gets his doctor's degree, if he ever does," Carl Brock retorted, "neither Peacevale nor any other city will get him on terms he is willing to accept now."

"Proceed with the report," said Fred Jonge, trying to be dignified. "Electing a city school superintendent every year or two is a time-killing business. Let's get done with the thing as soon as we can."

"I have here," said Banker Hazzard, who could have bought and sold Fred Jonge several times over but could not get control of the school board, "a resolution regarding Ross. Of course, it would have been pleasant to have him here for an interview; but you know what would have happened. The newspapers would have played up a sensational controversy; the teachers would have risen in wrath against a young outsider; and Ross would have gone home disgusted. There are just three men here now who want the place again; two may be buried in school principalships, but they don't know it; and the third is in the suburb north, trying to ferret his way in, as did Wimby Johnson."

At this reference, Fred Jonge snorted. Wimby was a tenant of his, and had come from a small city not far to the west.

The resolution read like this: "Hillman Ross, M.A., is hereby employed as city school superintendent for the period of one year at a salary of \$4,200, to assume the duties September first."

"Object," said Pat Hoge. "I'll never vote for a man I've not seen."

"You've voted for many men you've not seen, and you've gotten thousands of men to vote for scores of candidates whom they'd never seen," said Carl Brock, whose good nature did not prevent plain speech at times. Carl had come to Peacevale in the pre-war boom, and was carrying a hundred home-owners in delayed installments, a veritable Atlas with a world on his shoulders, now that Peacevale was in a slump. The war had brought 25,000 new residents but ten thousand men were now out of work.

Pat Hoge was not so old that he did not see the point. "Well," said he, "I have sufficient confidence in you two men to try this thing out. It may do for a year."

The vote stood unanimous; and in September Hillman Ross began his trial year.

Month succeeded month. There were reports on costs of instruction in all subjects and cost accounts in many other matters. The financiers of Peacevale were dazzled. The junior high school organization was overhauled. Of the three thousand children with no accommodations in the schools in September, every one



was given something, if only part-time instruction two hours a day. The old story, "We haven't the money to do that, and the taxpayers would not stand for it anyway," was never heard from the lips of Hillman Ross. Men who knew what they were talking about came to Peacevale to address the teachers, of whom one in five had been in the service so short a time ago as 1913, and many were by no means competent. New teachers were chosen as carefully as the too small salaries permitted. The schools were being managed, as not even "old Dad Pringle" or "Colonel" Deems had managed them. And there was plenty of opposition.

Came the day when Ross was either to be omitted for the future or placed in power to stay. "The Spy" said that the issue was "sovietism in the schools. Too much teachers' advisory council in the past, and men and women principals' clubs. Too much Hotel Monopole cigar counter politics. We had not democracy, but degeneracy, ever since 'Old Dad Pringle' died. The demolition of the schools should cease. The ride down hill is getting fearsome."

Rit Roudlphel of "The News" and William Bird, cartoonist for Rit's Ready Reasons, a column of paragraphs including drawings by Bird's Bill, made fun of Captain Hillman Ross in daily effusions of which this is a sample, printed the morning of the second meeting in March, 1924: "To-nite, see bout between Fritz Young and Berger Ross at the Lafayette Schoolhouse, second floor. Fans unwelcome; no admission." Appended was a drawing of a Highland Scot in kilts and with bagpipe on a ringed platform confronted by a square-headed, square-shouldered sport wielding a huge cigar. Hazzard resented this because even his grandsons suffered in school spirit. In his day, everyone loved "old dad."

The Press, which catered to labor, urged that a chief favoring the working people be chosen. It told the story of a plan to convert the entire Lafayette Park School into a hall of the board of education, incidentally taking from old Peter Andrews his job as janitor, a rumor that George Zelotes Fleet had started in order to get some wind into his own sails for the recovery of the city superintendency.

Once more, Banker Hazzard sat at a board meeting. Ross was excused after the routine agenda had been put through.

Miss Sommers, the new stenographer to the school superintendent, whom Fred Joneg regarded as a sheer extravagance, was called in to explain exactly how the rumor about Andrews had been started. Joneg denounced her as a spy, but the board heard her story.

"Rights of labor," declared Miss Thomas.

"Yes," retorted Carl Brock, "rights of labor not to be dragged into politics to forward the plans of schemers. The whole tale is false, and everyone knows it. This building will stay as it is. We need high schools, modern ones, not a hall."

Miss Thomas expressed entire satisfaction with the statement. New schools meant work for labor. They meant also care for the rights of children.

"Move," said Pat Hoge, "that the services of Miriam Sommers be forthwith terminated. She is unnecessary."

"Rights of labor," replied Miss Thomas. And the vote stood 6 to 2 against the proposition to release the loyal clerk.

Hazzard looked encouraged. Part of his system was standing firm. He had been waiting sixteen years for a break to follow through.

"Move," said Kimmons, "that G. Z. Fleet be appointed city school superintendent for two years at \$4,000 a year, to begin September 1."

The vote stood 3 to 5. Hazzard was considerably cheered by this.

"Move," said Carl Brock, "that the services of G. Z. Fleet be forthwith terminated and that he be paid the salary of his principalship for the remainder of the school year."

The vote stood 4 to 4. Hazzard did not despair.

"Move," said Carl Brock, "that Hillman Ross, M. A., be appointed city superintendent for a period of five years, at a salary of \$5,000 for the first year, rising \$300 each year thereafter, with allowances of \$500 for upkeep of his official car, \$250 a year for traveling expenses at his discretion, and \$100 for professional expenses, also at his discretion, all allowances on his own voucher, with one calendar month's time for annual vacation, at his pleasure."

This resolution was debated for an hour. The salary was too high. The allowances were absurd and excessive. Ross was "a school czar," "a dictator," "a working machine." They could get Professor Herbert Tomesbigh from the State Normal School for only \$4,000 a year, and they would not need a special head for the city normal. The Eaglesville State Normal School recommended him highly. "Yes," declared Frank Rodman Hazzard, "that was the way George Zelotes Fleet was unloaded upon us by the city of Oaktown."

The first ballot stood four yes, and four no.

The expression on the face of Miss Thomas changed.

The second ballot stood five yes, 3 no. Hazzard asked to have it read again. Then he said, quietly, "That is a relief. The man takes responsibilities naturally. The women teachers will get used to him. He's fair."

He was looking at Fred Joneg, who was perspiring in his seat, and squirming about until the chair creaked. "I resign," he broke out. "I can never work with such a man. He has never come to see me once. We ought to have an obedient subordinate who knows how to take orders."

"Move," said Carl Brock, "that the resignation of Fred Joneg as president be accepted with regrets."

The vote stood 5 to 3. Hazzard was then elected unanimously. The first move of Joneg on the floor was to request that the election of Hillman Ross be made unanimous.

Then Brock called Hillman Ross on the telephone and cheered the Ross family by putting it like this. "Fix up your affairs at home for five years, Mr. Ross."

Williams and Miss Thomas went home in the limousine of Merchant Dowlings. Alf Tilden who had gone overseas with Williams serving as chauffeur. Jim Kimmons took Pat Hoge to The Brown Bowl for a fine evening supper. Fred Joneg piloted Banker Hazzard and Realtor Brock to their homes in his new \$4,200 creation, leaving the car of Brock parked at the schoolhouse in care of Patrolman Mike Cleary, who asked warily, "And did ye change chiefs again? That man ye have meets me going home mornings and coming on the beat evenings. I might miss him."

"Well," said Fred Joneg, who was adaptable, "my friends here decided that you will not miss him unless he eases up his work a bit. He's to stay five years if we can stand it."

"I have always said," remarked Mike that midnight when he reported at headquarters, "that if you gave Frank Hazzard time enough, he would come through. It'll be good news to the people that they read in the morning papers. Harmony, that's it, and progress. The chief tends to business like a good officer."

"All right, Mike," replied the desk lieutenant. "I'm thinking that when they raise the pay of

the teachers, perhaps they'll remember us also. But the more teachers, the less police, Mike."

"I can bear that, too," replied the patrolman, going out to his duties. "And Fred's a good sport, only a bit conservative. It takes the like of Hazzard and Brock to spend real money. But I'll watch Williams and the lady politician also. It's real interesting this fine spring night, Forward."

THE PROPOSED CHICAGO SALARY SCHEDULE

The salary schedule worked out by Superintendent William McAndrew, and submitted to the Chicago board of education, primarily recognizes the cost of living as a basis for fixing compensation. It was prepared with the aid of professors of economics, bankers, citizens and government officials. The cost of decent living was considered, item by item, by a large group of citizens who are not teachers.

It proceeds upon the thought that a board of education should establish a salary schedule without waiting for employees to ask for increases, and without subjecting the system to the emotional excitement attendant upon the salary campaign. The proposed schedules are:

Position	Minimum	Maximum
Teachers of Elm. Subjects.....	\$ 1,500	\$ 3,250
Jr. H. S. Teachers.....	1,800	4,100
Sr. H. S. Teachers.....	2,000	4,700
Teacher Clerks	1,500	2,500
Elementary Principals	4,000	6,500
Jr. H. S. Principals.....	4,250	6,500
Sr. H. S. Principals.....	5,000	7,500
Sr. & Jr. Assistants.....	2,100	5,200
Directors of Sp. Branches.....	6,000	6,000
Asst. Directors	3,400	5,000
District Superintendents	8,000	8,000
Assistant Superintendents	10,000	10,000
Superintendent of Schools.....	15,000	15,000

Married and Unmarried Teachers

In discussing the subject of the married and unmarried teachers, the report says: "Attempts of other school systems to make a canvass of the entire teaching force to ascertain how many of the unmarried were assisting in the support of relatives and dependents proved so impossible of corroboration that the Chicago committee undertook a sampling process, selecting eleven schools, widely distributed, having 351 teachers. The canvass was made on the expectation that the principals of the schools and others selected would be able to corroborate the statements made."

This canvass shows 31% of the teachers living at home, 21% living in boarding houses, or hotels, 48% maintaining establishments with an average rental of \$1,111, 55% having dependents at an average of two each. The committee was unable to find in any system of public service in America a plan of salary schedules which discriminated between married and unmarried, or which was based on the number of children or dependents. Nor was the committee able to suggest any workable plan by which such discrimination could be made.

But the absurdity of driving out of the teaching profession married men with families, leads the committee to believe that the establishment of a salary schedule for all on the basis of a good living for married men with families is essential to secure for the schools that quality of service which the city requires, i. e., it is against the public welfare to base the salaries of teachers on the wages lower than figures which will enable the system to get high-class service.

The School Board's Control

The possibility of increasing one's income in free competition is impossible in a public school system. It is governmental monopoly. Arguably in most other occupations, and that therefore the pay should be less, imply that teachers should or may seek gainful employment in free

(Concluded on Page 125.)

Landscape Development of School Grounds

A. F. Brinckerhoff, Landscape Architect, New York, New York.

The development of school grounds involves three distinct and essential undertakings, although they should be considered together and so designed and installed that they will function harmoniously. These are: First, the Utilities, the things which enable the physical part of the plant to function—approach walks and roads, water, sewer and wiring conduits; second, Ornamentation, the refining process which utilizes the organic things of nature such as trees, shrubs and plants and so transposes them that they soften all harshness of mechanical forms and encourage use and enjoyment; third, Recreational Facilities, the essential adjunct to the health of the growing mind and body.

It is upon the second of these undertakings which I shall dwell in this article and endeavor to point out that ornamentation as referred to here is as essential to the successful working of the school plant as the blackboards on the walls of the schoolroom. This thought is prompted by the frequency with which one sees barren school buildings throughout this country; some old, others modern; some architecturally beautiful, others not beautiful, but none of them fulfilling their purpose beyond that of serving as shelters from the elements. It was this purpose which first prompted man to build and it was only after he felt secure from the elements, marauding beasts and his fellows that he took an interest in the refinement of himself. He devised and acquired things which satisfied his less material craving and was the better man for it.

As a nation we have prospered at a pace and to a degree unprecedented and this progress has been due primarily to the influence of the church and the school.

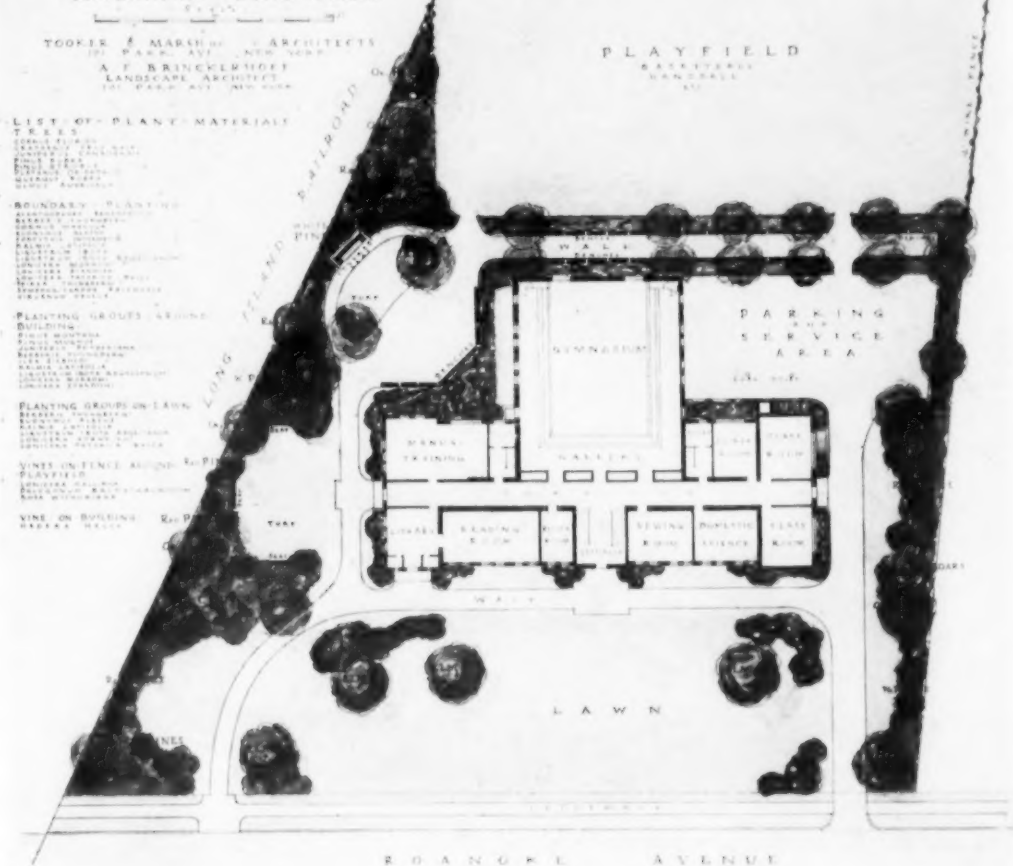
Many of us can look back with mingled feelings of both affection and repugnance to the schools of our youth. The repugnance is due largely to the memories of drab, untidy, and insanitary conditions which prevailed in the neighborhood of ninety-nine per cent of the schools of thirty years ago, both of the urban and country districts. The cultural benefits to be derived from encouraging a regard for the beautiful things had not at that time made much of an impression. And despite the great strides we have made in this regard it is still far too common a sight to see evidence of neglect and barrenness in the immediate surroundings of the school. Why do we appropriate liberally for the construction of school buildings, insist on the very latest devices in physical equipment and design beautiful structures, and yet neglect the exterior development, so that the architectural beauty of the building remains a static, mechanical thing when it might readily be made inspiring? Why do we begrudge the few hundred dollars such an accomplishment would cost?

To be consistent should we not have the entire plot designed as a unit and the appropriation made to cover the completion of that unit?

I believe that this oversight or neglect is partly due to a lack of appreciation of the importance of environment in the healthful development of youthful minds. This influence is a subtle thing and hence less easily comprehended than the necessity for teaching the child to read. It is comparatively easy to grasp the fact that the pupil must have a given amount of fresh air and exercise but more difficult to realize that if he or she is to become a normal useful member of society, encouragement in esthetic development must be afforded.

PLAN FOR GENERAL PLANTING

SENIOR & JUNIOR HIGH SCHOOL
RIVERHEAD, LONG ISLAND



PLAN FOR GENERAL PLANTING OF THE SENIOR AND JUNIOR HIGH SCHOOL, RIVERHEAD, LONG ISLAND, NEW YORK.

I recall an experience I had ten or twelve years ago with a country township in Connecticut where the district school system still prevailed. There were four little frame structures scattered over the countryside, each with its quota of boys and girls. Each schoolhouse stood on its allotted plot of bare ground where it had stood for many years under the same condition of barrenness. I talked with the members of the school board and offered to prepare planting plans for each lot, if the board would direct the teacher of each school to guide and assist the children in the preparation of the soil, the collecting of the plant material from the neighboring fields and woods, and the planting of it according to the plans. I endeavored to point out that the effort thus expended on the part of the children would inspire an active interest on their part toward maintaining the grounds in a more pleasing condition and would encourage their powers of observation and appreciation for the beautiful, natural growth about them of which there was a great wealth. The men finally agreed and the work was carried out in varying degrees of efficiency. From an expert gardener's point of view it was poor, many of the plants died and since that time new teachers and a new generation of children have come to

these schools so that the work has been much neglected, but I like to feel that of that particular group of children some few may have acquired a sufficient glimmering of what the operation meant as to enable them to get just a little more out of life through quickened powers of observation and the appreciation of beautiful natural objects.

The advantages of planting about the school grounds and buildings may be two-fold. First, to beautify and thus raise the standard of the community and those using the plant; second, to encourage a regard on the part of the pupils for the natural things about them which may properly become a part of their lives. If the first is correctly administered, the second will be inevitable.

In order to obtain the best results, the plan of the physical layout and the plant masses should be worked out as one and the plant forms and their disposition should be selected to emphasize both the views of the structure itself and the more important views from the building outward. It is also frequently necessary to screen out unsightly objects or views through the proper disposition of the planting areas. The plant forms and masses should conform or be in harmony with the architecture of the build-



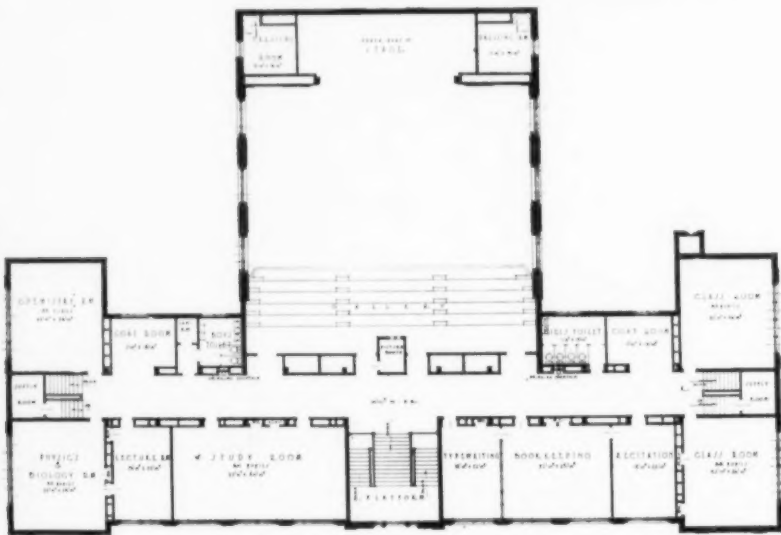
JUNIOR AND SENIOR HIGH SCHOOL, RIVERHEAD, LONG ISLAND, N. Y.
Tooker & Marsh, Architects, New York, N. Y.—A. F. Brinckerhoff, Landscape Architect, New York, N. Y.

ing which usually is the dominant and most important object in the composition.

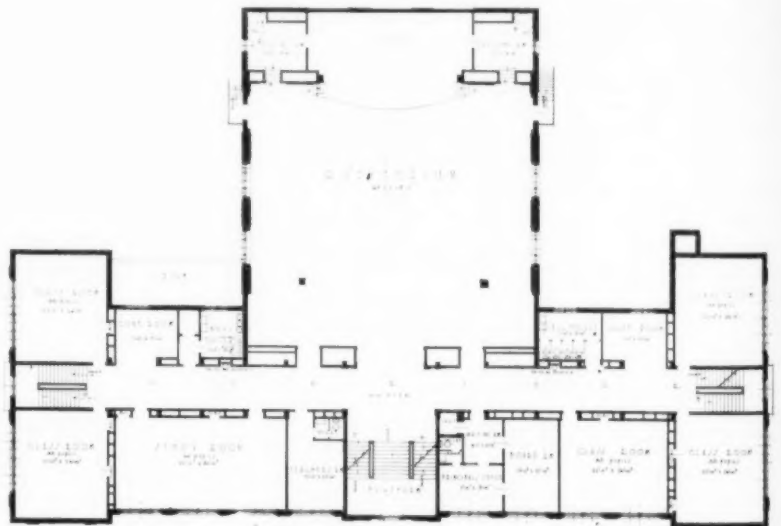
As to the selection of trees and plants to be used, it is preferable to utilize such varieties as

are either indigenous to the locality, or are similar to those which are, in their forms and manner of growth. It is a dangerous practice and usually evidence of bad taste to make use

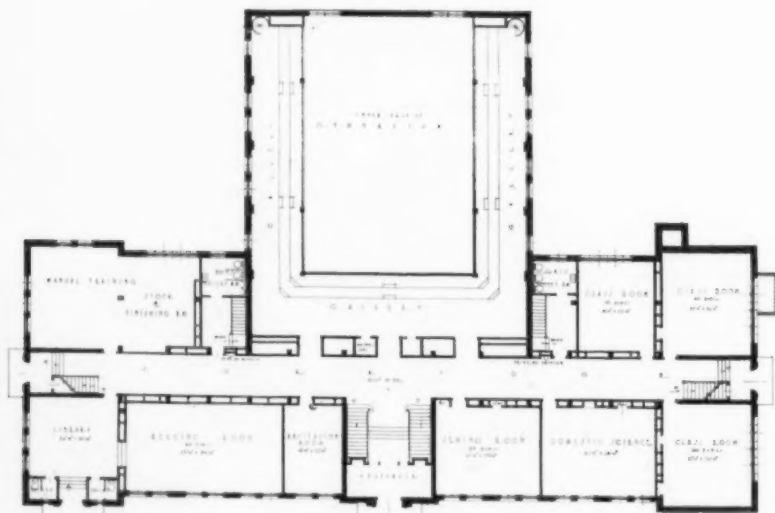
of the bizarre or exotic type. The ornamental portion of the school grounds is not the place for rare and conspicuous horticultural varieties. It is further of the utmost importance to so



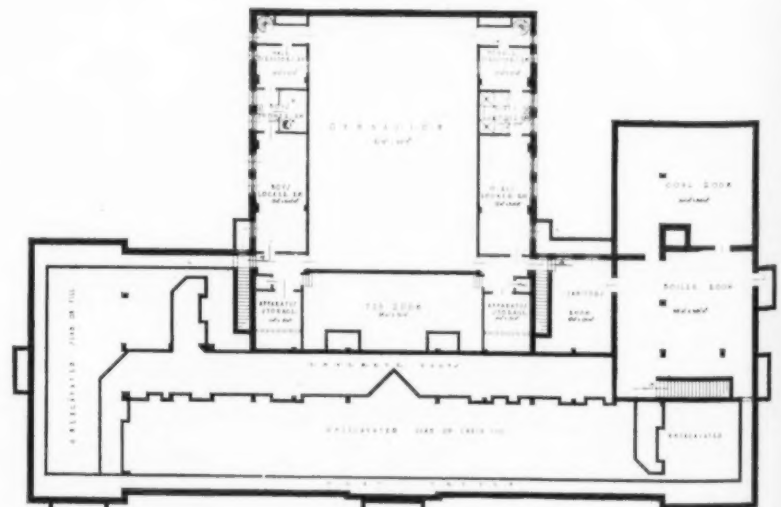
SECOND FLOOR PLAN



FIRST FLOOR PLAN



GROUND FLOOR PLAN



BASEMENT FLOOR PLAN

SENIOR AND JUNIOR HIGH SCHOOL, RIVERHEAD, LONG ISLAND, N. Y.
Tooker & Marsh, Architects, New York, N. Y.—A. F. Brinckerhoff, Landscape Architect, New York, N. Y.



ELEMENTARY AND HIGH SCHOOL, ANCHORAGE, KY.

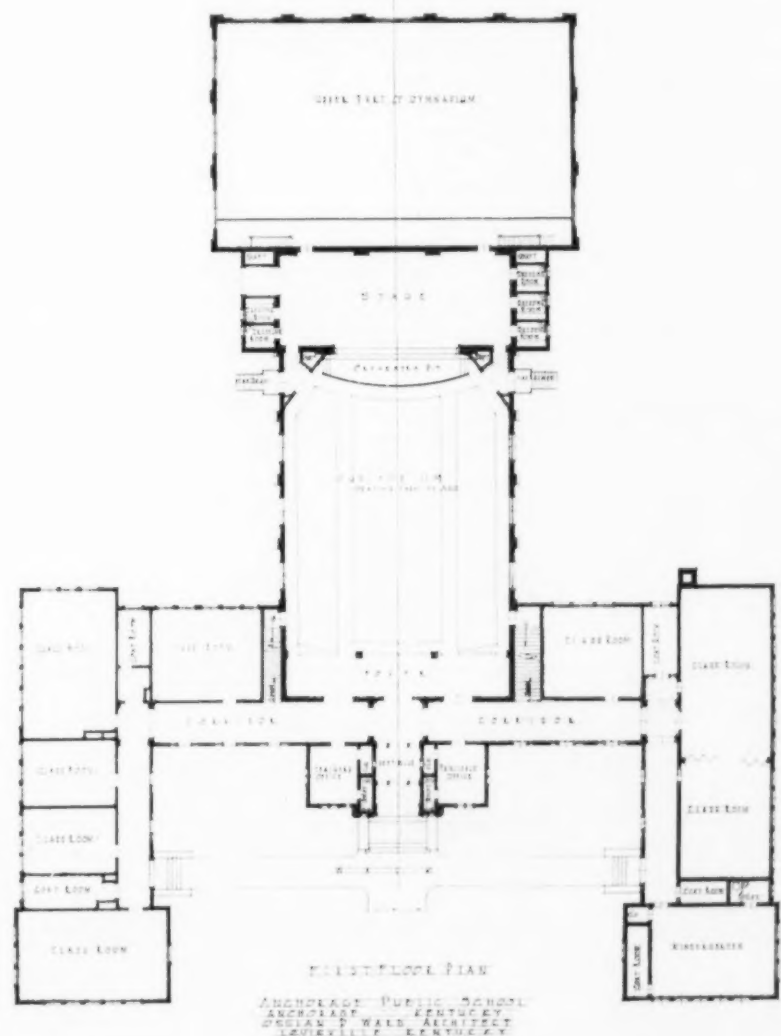
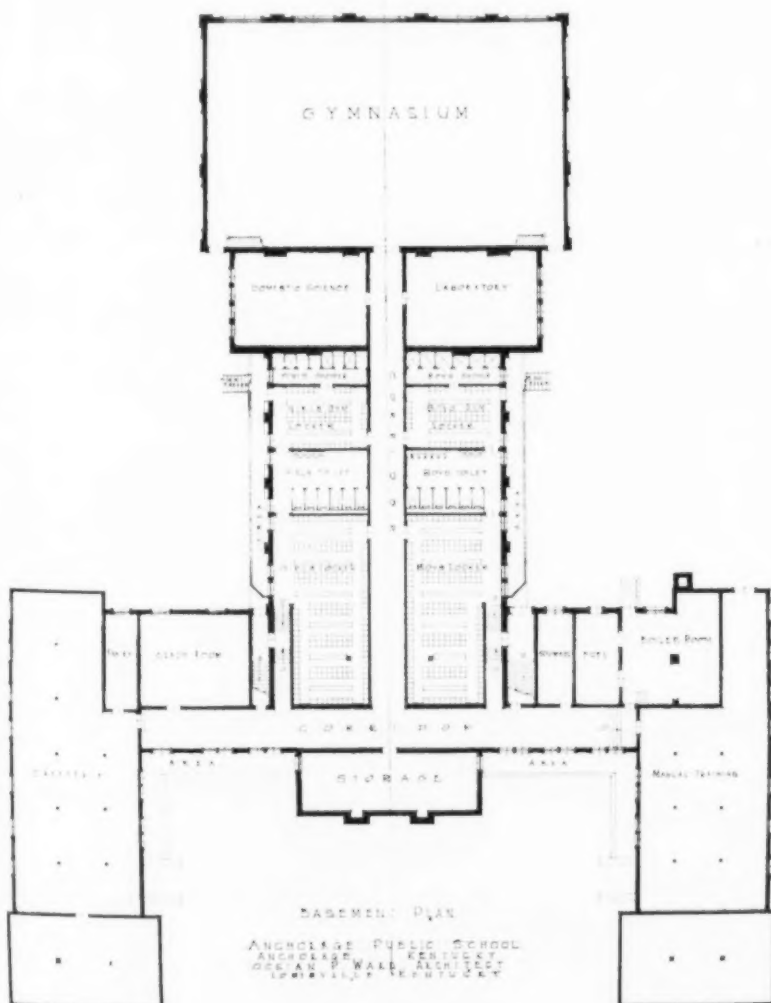
O. P. Ward, Architect, Louisville, Ky.

design the grounds as to minimize, so far as may be consistent with the required use, the cost of upkeep. And the cost of maintenance should be considered by those in authority at

the time the plans are prepared so that there may be no danger of neglect on account of lack in appropriations.

In brief then my plea is for consistency in or-

namentation. Consider the school grounds as part of the school equipment and design the whole as a unit with the same regard for the exterior as for the interior.



THE ANCHORAGE GRADE-AND-HIGH SCHOOL

M. J. Clarke, Superintendent of Schools,
Anchorage, Kentucky

Anchorage is an incorporated town of five hundred population, located in Jefferson County, Kentucky, about twelve miles from Louisville. The town is a residential suburb of Louisville, most of the citizens having their businesses in the city. The schools of the town are organized independently of the county school system as a graded school district. They are in charge of a board of education of five members, elected by the voters of the school district, the limits of which are co-extensive with the town.

Although organized as an independent district, the board did not have a school building prior to 1914; the children numbering about fifty were taught in a privately-owned plant in the town. In that year, due to unsatisfactory housing conditions, a movement was started to build a grade-and-high school building. A piece of ground of seven acres was purchased near the center of town and a bond issue of \$12,000 was voted for a building.

In order to secure a building modern in every respect, advice was asked from the U. S. Bureau of Education. Acting upon this advice, a firm of Louisville architects, Messrs. Ward & Glossop, were called upon to construct a building which should not only meet the educational needs but should also differ somewhat from the traditional type of school building so common in Kentucky and elsewhere in the country.

A plan was prepared for a building closely resembling the present structure, though somewhat smaller as to auditorium capacity and without provision for the use of the basement floor. With the bonds voted, a part of one wing of the present building was built. Two years later, two additional rooms were added, and some space was excavated in the basement, thus completing the left wing of the school.

Further construction work was not attempted until the fall of 1921 for the reason that a proposed bond issue had been defeated in 1919. A second bond issue of \$12,000 was however voted in 1921. The right wing of the building was completed in the spring of 1922. The two wings, separated by a space of fifty feet, were at this time connected up by a covered walk. The contract amounted to approximately \$30,000, the remainder having been saved out of current income for several years.

Early in 1923 it was indicated that additional space would be needed to meet the pressing needs of a student body which had increased fifty per cent in the grades and more than

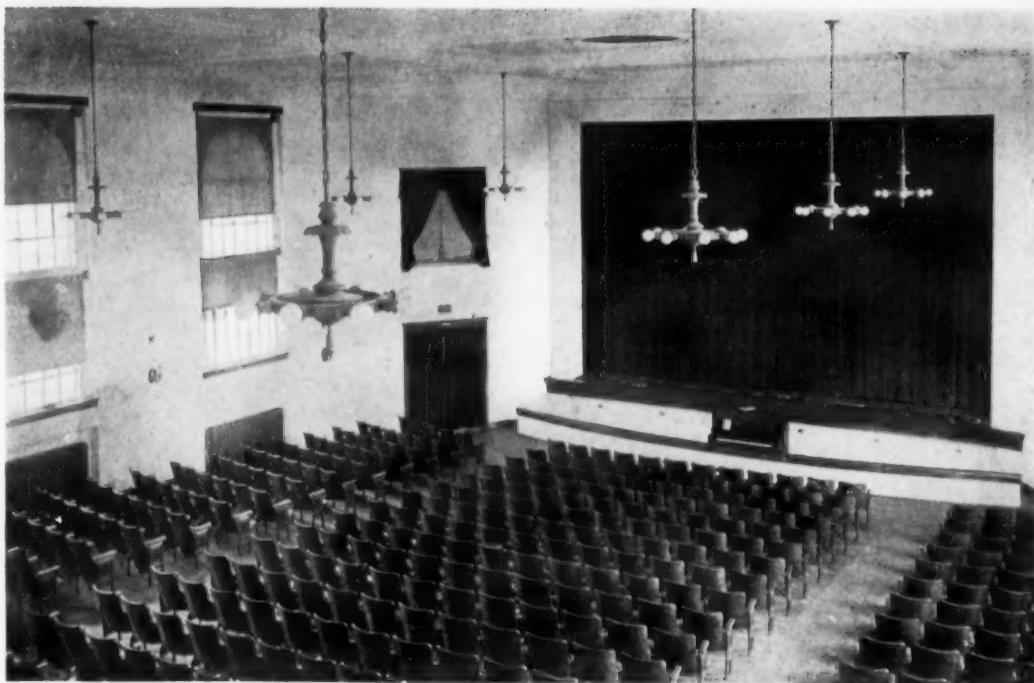
doubled in the high school. A third bond issue of \$45,000 was voted and construction work was begun on the central portion of the structure in the summer of 1923. This section consisted of an auditorium, shower and locker rooms, laboratory and classrooms, and was erected at a cost of approximately \$85,000.

The plant is now complete, with the exception of the gymnasium, and funds are to be provided for beginning the work early this spring. The contract calls for an expenditure of \$25,000 and the completed plant will cost a total of \$160,000.

The building is of the one-story-and-basement type of construction, a type peculiar to California, and is especially suitable for a suburban school having sufficient grounds for landscaping. The type of construction makes it easy to be emptied in case of fire or panic.

The building proper is constructed of cream-colored stucco, on hollow tile, with red Spanish roof. The floors in the corridors are of concrete, while those in the classrooms are of hard maple; doors and woodwork are of oak. Corridors, as well as classrooms, are well lighted.

The auditorium seats more than five hundred on the main floor, and an additional 150 persons can be accommodated in the balcony which is to be erected in the near future. The stage is of ample size and is equipped with all facilities for the production of regular theatrical performances. There is also a fine moving picture machine and screen.



AUDITORIUM, ELEMENTARY AND HIGH SCHOOL, ANCHORAGE, KENTUCKY.
O. P. Ward, Architect, Louisville, Ky.

The ground slopes away from the front of the building toward the rear, allowing space for a gymnasium at the rear of the auditorium stage. This gymnasium will be built at basement level and will be of ample size to accommodate large basketball courts.

Building a school in sections has been found to have advantages as well as disadvantages. Some temporary construction involving extra expenditures was necessary, but this appeared to have been more than offset by advantages gained in the direction of needed changes and improvements. Had the building been erected as planned in 1914, it would be lacking in facilities for the present size of the school.

HOW TRACY PUT OVER A BOND ISSUE

Tracy, California, has a population of 3,600. The district is bonded for \$115,000 for school buildings. There are three good grade buildings and one of the finest high school buildings in the West. As far as known, Tracy is the only city in the United States where twenty-five per cent of its total population is in the day schools.

But, Tracy needed more money for new school sites—\$18,000 more. When election day came the school people got busy on the telephone. The voters were reminded that a bond issue question was to be determined. Then there was a Washington's birthday parade and the populace was surprised to see 700 school children in the line of march.

The election which came two days later resulted in 317 votes for and 40 against the bond issue. L. E. Richards is the superintendent of schools.



CAFETERIA
ELEMENTARY AND HIGH SCHOOL, ANCHORAGE, KY. O. P. Ward, Architect, Louisville, Ky.

CORRIDOR



SOUTH ELEVATION, HIGH SCHOOL, ISLIP, N. Y.

Edward Hahn, Architect, Hempstead, N. Y.

THE ISLIP HIGH SCHOOL AT ISLIP, L. I., NEW YORK

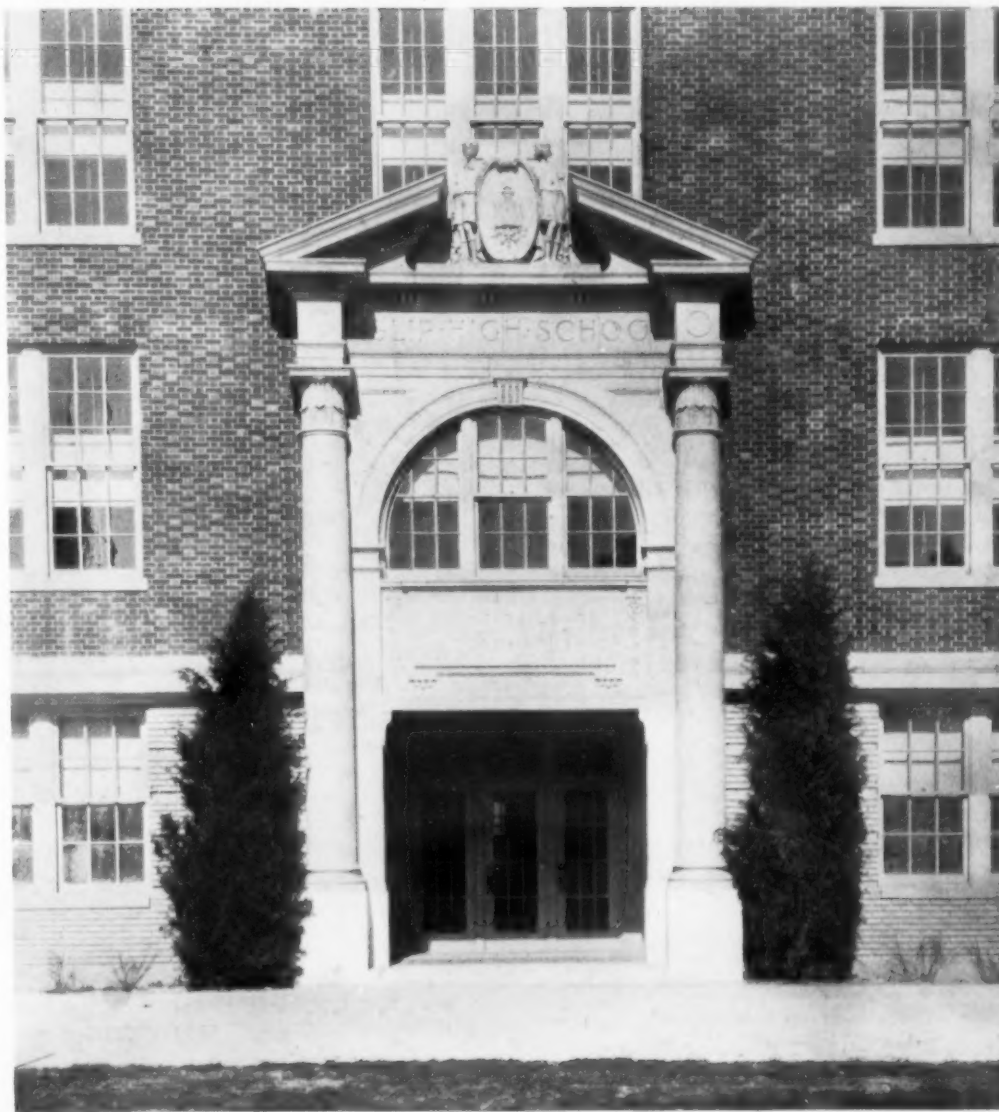
"We are more than pleased with the work and feel that we have a plant second to none"; this unanimous expression of the board of education at Islip, New York, upon the completion of their new grade and high school building, indicated more than general satisfaction.

The new building takes the place of the old frame structure, which was much too small and sadly lacking in most of the necessary requirements of a modern school building.

The site contains over six acres, has a frontage on Merrick highway of 350 feet and sets back from the road about two hundred feet. Reserved at the back of the building, is ample space for future extension and a large athletic field.

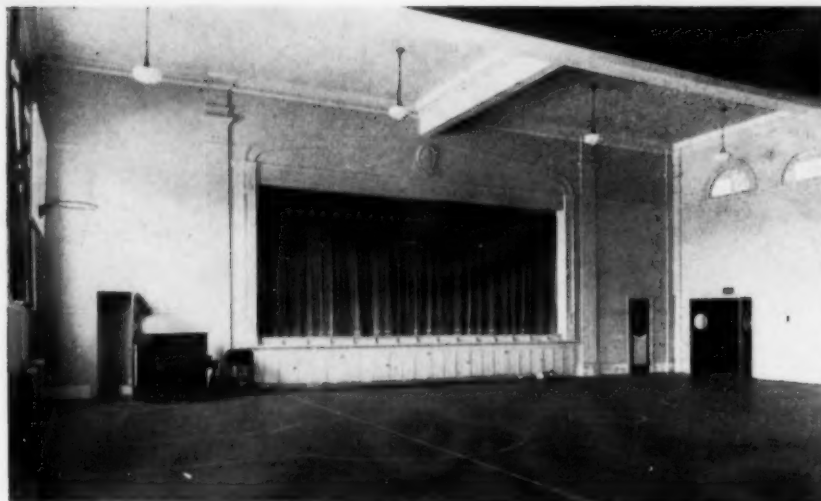
The building faces south and while of the compact plan, is so arranged, without resort to light courts, to obtain the proper supply of natural air and light in every part. It has a frontage of 180 feet, is approximately one hundred feet in depth and three stories high, without basement, except that portion devoted to the heating plant, etc.

The main or public entrance is at the center, leading to the entrance hall, which is particularly wide in order to afford the needed space for the number of individuals who must use it. The entrance hall leads directly to the auditorium, which, until such time as future extensions are made, will serve as a temporary gymnasium. The auditorium and balcony have a combined seating capacity of over 750. There are a large stage and dressing rooms and the stage platform is so arranged, that when the room is used for gymnasium purposes or dancing, the seats may be stored underneath the stage.

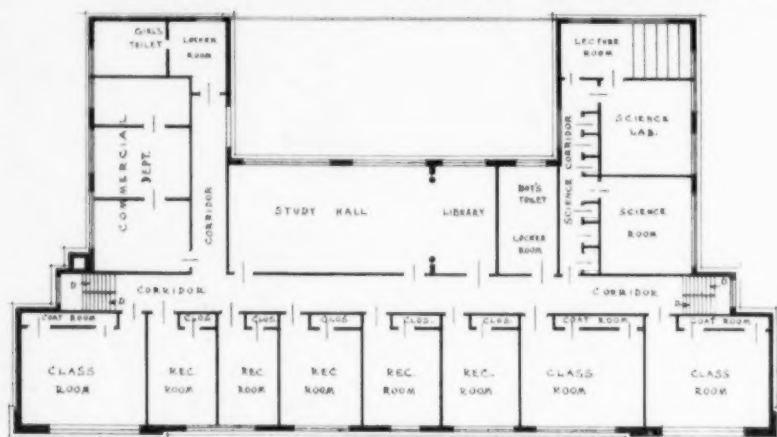


MAIN ENTRANCE, HIGH SCHOOL, ISLIP, N. Y.

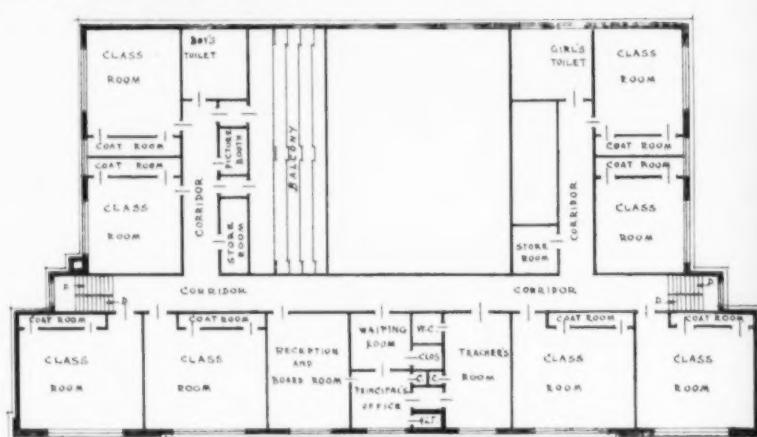
Edward Hahn, Architect, Hempstead, N. Y.



AUDITORIUM STAGE.
HIGH SCHOOL, ISLIP, NEW YORK. Edward Hahn, Architect, Hempstead, N. Y.



"THIRD FLOOR PLAN"



"SECOND FLOOR PLAN"

FLOOR PLANS, THE ISLIP HIGH SCHOOL, ISLIP, N. Y.
Edward Hahn, Architect, Hempstead, N. Y.



ISLIP HIGH SCHOOL

"GROUND FLOOR PLAN"

EDWARD HAHN-ARCHT.
HEMPSTEAD, N.Y.



WEST ELEVATION, HIGH SCHOOL, ISLIP, N. Y.
Edward Hahn, Architect, Hempstead, N. Y.

The first or ground floor contains, in addition to the auditorium, spacious locker and shower rooms for boys and girls, a domestic science department with separate lunch rooms for both sexes, a large room for mechanical drawing, a kindergarten and ample space for the manual training department. The room for the clinic and nurse is adjacent to the kindergarten.

Pupils' entrances and stairways are east and west at both ends of the main corridor.

On the second floor, grouped at the center, over the main entrance, are the principal's office and waiting room, a reception and board room. A rest room for teachers and eleven classrooms, to take care of the various grades, are distributed east, south and west. There are toilet accommodations and store rooms also and the entrance to the auditorium balcony is from the second story corridor.

The third floor is devoted exclusively to the high school; a large study hall, library, a commercial department of three rooms, for book-keeping, stenography and typewriting, laboratories for chemistry and physics, with a lecture

room; there are also five recitation rooms. The total capacity of the school is 800 pupils.

The high school department, has combined locker and toilet rooms; there are several store rooms and closets. An innovation, for the disposal of waste paper, is a paper chute on each floor connecting with a room adjacent to the boiler room. The building has a vacuum cleaning system, is wired for electric light and power, is equipped with lighting fixtures and a clock and bell system.

The construction of the building is fireproof throughout. The exterior walls are of face brick with terra cotta trim.

The district appropriated \$200,000 for the erection of the building and the sum expended by the board including everything except furniture, did not exceed that sum. The cost per cubic foot was less than 33 cents on the basis of a total cubic contents of 620,000 cubic feet.

Edward Hahn, of Hempstead, New York, is the architect, and George T. Kelly of Yonkers, New York, the general contractor.

NORTH CAROLINA'S SCHOOL NEEDS

"If the people of North Carolina are to build for themselves an adequate system of public education," says A. T. Allen, superintendent of public instruction of North Carolina, "it will be necessary to consider the following basis upon which such a system may rest:

"(a) The will of the people to educate their children.

"(b) The constitutional and legal basis.

"(c) The sources of revenue; and

"(d) What is an adequate system of schools.

"The will of the people or their determination to educate their children is one of the determining factors. When the Saxon immigrant faced the forest of America, he willed to clear them out of his path. This same courage has built roads and bridges and cities and supplied us with the innumerable tools of civilization and comforts of living. We can rely on this will to do, this courage to undertake, if the educational leadership of the State can show the way."

Mr. Allen explains the dual system, local and state, for school support and explains the sources of that support as follows: "The county derives its revenue for schools from the following: (a) ad valorem taxes on all the property in the county; (b) poll taxes; (c) fines, forfeitures and penalties; (d) dog taxes; and (e) parks. The state has limited itself to indirect taxation or taxation other than ad valorem taxes such as franchises, corporations, incomes, etc.



HIGH SCHOOL, PATCHOGUE, N. Y.

Tooker & Marsh, Architects, New York City.

"And adequate school system involves increased revenues from some source to provide—(a) longer terms; (b) larger type of rural school involving consolidation and transportation; (c) better buildings; and (d) better teaching. All of these things, of course, can not be added at once but as each one is extended, greater financial support will be necessary.

THE NEW HIGH SCHOOL AT PATCHOGUE, NEW YORK

The new high school building at Patchogue, N. Y., has been designed to meet all the needs of the community, for secondary education and for community use. The building was planned in 1922, and the contract for it was let in

November of that year. It was completed in February, 1924, and occupied shortly thereafter.

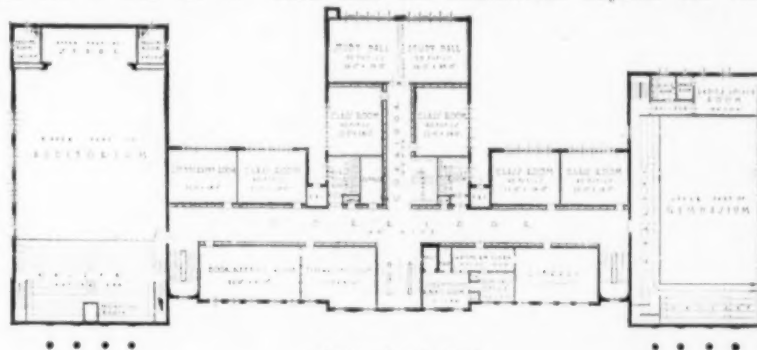
The instructional departments of the building are in the middle portion and in the rear wing, and the auditorium and gymnasium are in the two end wings. The arrangement is such that the auditorium adjoins the village



THIRD FLOOR PLAN



• HIGH SCHOOL # PATENGOBLE, N.Y. •



• HIGH SCHOOL AT PATCHOGUE, N.Y. •



• HIGH SCHOOL AT PATCHOGUE, N.Y. •



AGRICULTURAL BUILDING, KERN COUNTY UNION HIGH SCHOOL, BAKERSFIELD, CALIFORNIA.
Chas. H. Biggar, Architect; assisted by H. K. Dickson, Head, Agricultural Department.



DAIRY LABORATORY IN THE AGRICULTURAL BUILDING OF THE KERN COUNTY UNION HIGH SCHOOL, BAKERSFIELD, CALIF.



FLOOR PLAN OF THE AGRICULTURAL BUILDING, KERN COUNTY HIGH SCHOOL, BAKERSFIELD, CALIF.
Chas. H. Biggar, Architect, Bakersfield, Calif.

Memorial Park, and may serve for various meetings and gatherings, independent of the school and of the balance of the building. The auditorium has a front entrance leading directly from the street, with a large lobby and stair hall equipped with a ticket booth, coat checking room, and lavatories. The auditorium seats about 1,200, and has a large stage suitable for meetings and theatricals. There are ample dressing rooms and an orchestra pit. A projection booth is provided in the gallery.

The gymnasium at the south end of the building is a complete unit which can also be handled independently of the balance of the building. It has a front entrance with a lobby and ticket office, space for checking wardrobes, and an office for the director. Locker rooms and considerable space for spectators, toilets and showers have been arranged for. The gym locker rooms are independent of the students' locker and shower rooms, which are located in the main portion of the building.

Except for pipe tunnels there is no basement under any portion of the building. The ground floor which contains a lunch room, locker rooms, work shops, and classrooms is on the level of the building site. On this floor there is, in addition to the rooms enumerated, space for the physical directors and for the medical inspectors.

On the first floor are located six classrooms, a group of three rooms for the commercial department, a large study hall which may be divided into two classrooms, toilets, and the administrative offices of the village school system.

On the second floor there are twelve classrooms, a double study hall which may also be cut into two classrooms, a teachers' room, toilets, and locker rooms. The third floor is devoted to the laboratories, drafting room, and a housekeeping suite.

The building is of brick, concrete, and stone, and cost a total of \$464,500. The architects were Messrs. Tooker and Marsh, New York, N. Y.

AGRICULTURAL BUILDING OF THE KERN COUNTY HIGH SCHOOL

The agricultural laboratory building of the Kern County High School at Bakersfield, Calif., is one of the more recent buildings of the group which now includes eleven structures. The building was put up in 1921 at a cost of \$46,000. The building is constructed of brick, tile, and concrete, and affords ample space for all of the agricultural laboratories and work rooms.

GOVERNING HIGH SCHOOL DELINQUENTS

The board of education of the Charleston, W. Va., independent school district has found itself compelled to greatly reduce the number of junior high school delinquents. The situation is

aggravated by the fact that the senior high school is at present obliged to accommodate approximately three hundred more students than can comfortably be taken care of.

Thus, the board announced that in view of the fact that the education of each student entails a cost of \$150 a year and that each student who has to repeat any subject or subjects is that much additional expense; the following ruling goes into immediate effect:

1. A high school student who does not pass in at least three major subjects during any semester in school shall be placed on probation at the beginning of the following semester, notice to the parent or guardian being sent simultaneously. Failure to maintain a passing grade in three major subjects during the probation semester shall be cause for him to be dropped from the school at any regular report time during the semester or at the close of the semester, provided the parent or guardian has been duly warned.

2. A student dropped from the high school because of poor work shall not be re-instated before one semester has elapsed, and, when re-instated, he shall remain on probation until he makes a passing grade in three major subjects for one semester.

3. A student on probation shall be ineligible to participate in any type of extra-curricular activity which requires any considerable time, such as participation in school plays, athletics, literary contests, and such other activities as may interfere with the regular class work or home study.

4. Exceptions may be made to these rules in case of illness or on account of circumstances beyond the student's control.

Consolidated School Costs in Iowa

A survey of school costs in Iowa was recently made by the School Finance Inquiry under the direction of William F. Russell, formerly dean of the college of education of the University of Iowa. This survey attempts to analyze the financial aspects of the system of public education in Iowa for the period from 1910 to 1922.

A committee of Iowa educators has since made a study which avails itself of the survey above mentioned and becomes more specific along certain lines. It limits itself to findings which are deemed of special interest to consolidated school boards and superintendents.

The report of the committee made by H. C. Moeller, superintendent of Black Hawk County, deals with four general topics, namely, "(1) Facts of general information concerning Iowa, (2) Cost of Public Education in Iowa and factors that bear upon that cost, (3) An analysis of the Current Expenses in Education, (4) A comparison of the per pupil cost of education in Consolidated districts with the cost in all other types of districts.

The following terse and illuminating paragraphs are taken from the report:

I. Some of the Outstanding General Facts Are:

1. Farm population—43.7%.
2. Rural population (including towns below 2500)—63.6%.
3. Total enrollment in all schools (both public and private) constitutes approximately 25% of population.
4. Enrollment in public schools—91.5%. Enrollment in non-tax supported schools—8.5%.
5. Total number of teachers in Iowa in both tax and non-tax supported schools in 1921-1922—nearly 29,000.
6. Total cost of Public Education for 1921-22.
Current Expenses\$50,108,272.71
Capital Outlay 10,543,518.95
Interest 2,061,420.27
Of the total, 87.6% was expended by local authorities and 12.4% by state authorities.

The increase in enrollment from 1909 to 1922 was only 20.6% while the increase in cost was 460%.

Reasons for the increase:

1. Difference in Purchasing Power—while the actual cash disbursement in 1922 was 4.6 times that of 1909, the purchasing power of the cash expended in 1922 was only 2.3 times that of 1909.
2. From 1909 to 1914 school plants wore out more rapidly than they were replaced. In no year since 1914 has the investment in the school plants been less than the amount worn out. In 1922 there was invested \$12,604,939.32, while the depreciation was \$7,400,768.48.
3. Aggregate expenditures for high schools and institutions of higher learning have increased more rapidly than for the elementary schools. In the fourteen year period elementary schools have increased their cost 3.6 times over 1909; high schools 7.7 times; normal and colleges 5.5 times; administration 2 times.
4. Increase due to consolidation. In 1909 the cost of transportation in consolidated districts was \$21,000; in 1922 it was \$2,000,000.

II. Analysis of Current Expenses in Education

Teachers' salaries increased 239.0 per cent in the fourteen year period. With the exception of the increase in salaries of secretaries and treasurers (amounting to 31.8 per cent), the teachers received a smaller increase than any other item in the total common school expenditures. Transportation costs increased more rapidly than any other item, having an increase of 6,622.5 per cent. This was due to the fact that in 1909 there were but seven consolidated districts within the state. The item under the caption "Paid for Other Purposes" increased 799.1 per cent. Interest payments increased

1085.8 per cent and capital outlay 1147.7 per cent.

Per Pupil Costs in Terms of Total Current Expense on Average Daily Attendance in High Schools of Iowa

	1910-11	1915-16	Medians	1920-21	1921-22
First-class Cities	63	74		140	134
Second-class Cities	55	66		121	122
Approved 4-year High Schools.....	53	73		144	138
Consolidated 4-year High Schools.....	81	102		245	224
Approved less than 4-year High Schools.....	41	76		146	124
Consolidated less than 4-year High Schools.....		187		342	290

Per Pupil Costs in Terms of Total Current Expense, Based on Average Daily Attendance, in Elementary Schools of Iowa

	1910-11	1915-16	Medians	1920-21	1921-22
First-class Cities	33	41		83	80
Second-class Cities	25	30		59	62
Approved 4-year High Schools.....	24	34		60	64
Consolidated 4-year High Schools.....		44		81	78
Approved less than 4-year High Schools.....	29	39		66	69
Consolidated less than 4-year High Schools.....		48		92	94
Villages	28	33		63	58
Rural Townships	33	41		80	74
Rural Independent	29	36		72	68

Relation of Teachers' Salaries to Total Current Expenses

While teachers' salaries have risen rapidly within the fourteen year period, students of the problem are pretty well agreed that this apparent rise has been in large part the result of a general rise in price levels and does not represent a proportionate increase in purchasing power.

The average teachers' salaries, for both male and female teachers increased gradually from 1909 to 1915, followed by an accelerated rate of increase up to 1921 which was followed by a decided drop in 1922.

However, with respect to the purchasing power of these average monthly salaries, there seems to be no corresponding increase in the purchasing power after 1915. Instead, the economic reward seems not so great from 1917 to 1920 as it had been in any of the preceding years of the period. In the last six years the rate of increase appears to have been less and only in 1921 and 1922 did the purchasing power of the teachers' average monthly salary exceed that of 1909.

Washington Correspondence

A. C. Monahan, Formerly, U. S. Bureau of Education.

The Sixty-eighth Congress completed its work at noon on March 4th and adjourned *sine die*. Relatively little educational legislation was passed. Bills of national interest previously reported in this Journal (the proposed Federal Department of Education and Relief and the National Education Association Department of Education bills) both died in committee. The principal measures actually enacted into law concern the District of Columbia, with the exception of the appropriation bill for the United States Bureau of Education.

The total appropriated for the Bureau of Education for its work in Washington, including printing and contingent expenses both of which are allotments from the appropriation to the Department of the Interior, is \$270,850 for the fiscal year beginning July 1, 1926. This is an increase of only \$4,700 over the amount available in 1921. However, the allotment for printing in 1926 is \$40,000 less than in 1921, the difference being due to the decrease in the cost of printing in the Government Printing Office. The 1926 appropriation, excluding that for printing, is approximately \$44,000 greater than at the beginning of the Harding administration. The amount allotted for printing permits the same amount of printing.

III. Per Pupil Costs in Consolidated Districts as Compared with Other Types of Districts

There is not a great deal of variation in the amount spent for a given subject in the different classes of schools.

Second-class cities show a lower average cost throughout than any other classes having a report for the full eight grades. Consolidated schools have the highest average cost for regular teachers and the highest total cost. The most expensive school was in a town under two thousand in population. The lowest cost for regular teachers and also for special teachers was found in a school in the same class. The lowest total cost for both types of teachers was found in a second-class city.

The per pupil costs in the high schools in consolidated districts are comparatively high. Some of the reasons for this would seem to be (a) transportation of high school pupils, (b) special stress placed on teaching of vocational subjects, (c) smaller attendance per teacher.

Rural townships comprise about two-thirds of the one teacher schools of the state. Notice the small difference between the per pupil cost of the elementary education, that is the first eight grades, in the consolidated districts and the rural townships.

The principal increase is in the amount available for salaries, being an increase from \$95,753 to \$121,680. For rural education and industrial education \$53,000 is provided; for city school education, \$12,800; for kindergarten education \$7,000; for collecting statistics \$13,800; and for general expenses \$14,320, miscellaneous items making the remainder.

The appropriation to the United States Bureau of Education for its work in Alaska for the coming year is \$571,895. This is an increase of \$167,000 in the four years during which Dr. John E. Tigert has been Commissioner of Education. Of this appropriation, \$437,075 is to be used in school work; \$122,320 in medical relief work; and \$12,500 in supervision of the reindeer industry.

The total appropriation for the entire work of the Bureau both in Washington and Alaska for the coming year, is \$842,745. This is an increase of \$171,673 or 25.5 per cent since the beginning of the Harding administration, the period in which the present Commissioner has occupied office.

The increased appropriation for the Alaskan educational work available since 1921, has resulted in considerable reorganization of the

(Continued on Page 125.)



THE AMERICAN School Board Journal

WM. GEO. BRUCE }
WM. C. BRUCE } Editors

EDITORIAL

WHO SHALL DETERMINE THE QUESTION OF SCHOOLHOUSE CONSTRUCTION?

The exercise of American school administrative authority is afflicted with the usual drawbacks and hindrances that attend deliberative bodies dealing with affairs involving public finance. The most vexatious interference with that authority arises out of the laws which, in a number of states, place the board of education in matters of finance under the control of the city council.

This control at times develops into embarrassing, not to say humiliating, situations. City councils at times not only determine how much money shall be expended for school purposes, but attempt to dictate when and how it shall be expended. The board of education may propose, but the city council will dispose.

A case of this kind has developed in New Bedford, Massachusetts. In commenting on the situation the *Standard* of that city says: "That it takes two to build schoolhouses in New Bedford is a fact that continues to be brought home to us. The school committee may have very positive ideas as to what kind of a building should be erected, and where it should be put, but the city council is under no compulsion to carry them out. The city council, in turn, may also have positive ideas on these subjects, but it is not permitted to carry them out unless the school committee approves. The school committee is not much concerned about money, because it is not responsible for financing municipal expenditures; and the mayor and city council, who are held responsible for taxes, are not expected to be experts on school needs. Altogether, the arrangement is one that makes for delays and deadlocks."

The editorial proceeds from the thought that only the city council is directly responsible to the public. The only check here upon city council domination lies in the right of approval accorded to the board of education. But, even this condition does not make for the expeditious compliance with public school needs. Delays and deadlocks are the consequence.

The weakness of this system lies in the assumption that the board of education is not directly responsible to the taxpaying public and hence cannot be trusted with matters of a financial character. Where the appointive system prevails the board may not be directly answerable to the public. But, that does not prove incompetency to deal with a financial problem.

In most communities, however, the board of education is an elective body, and hence directly responsible to the voters. Experience has demonstrated, that where boards of education are clothed with financial independence, they render more efficient service than in cases where they are under control of city councils.

And why should this not be so? The board of education is familiar with the administrative needs of the schools. The city council which

deals with questions of police and fire protection, sanitation problems, streets, alleys, and what not, cannot be expected to have a mastery of school administrative questions. The board of education knows when and where a new schoolhouse is needed, and it also knows the size and style of building best suited to meet certain conditions.

While there must be some coordinating force that shall determine the tax ability of the community and apportion the several funds that shall maintain the several branches of municipal government, it also follows that the schools cannot be made subservient to the will of those least competent to judge its needs.

The suggestion that the board of education be rendered independent of city council domination does not imply that the board shall also take over the tax levy and tax collection machinery. That is best left to the municipality that levies and collects the taxes for all purposes. But, it does imply that the board of education must have the final voice in matters of a financial character and that ample safety is afforded in the fact that that body is directly answerable to the taxpaying public for every dollar it expends.

POINT OF CONTACT BETWEEN PUBLIC AND SCHOOL BOARD

In the scheme of popular education, as exemplified in this country, the relations between the general public that supports the schools and the authorities that manage them, always deserve consideration. Frequently these relations bear a considerable influence upon the character of the schools. They may affect the matter of support, the courses of study and the general trend and spirit of school life.

The desire to rear these relations into an effective instrument whereby the point of contact may be definitely established, has led to the organized effort which finds its best expression in the modern parent-teachers association and other similar bodies.

Thus far much good has come from the activities that have been engaged in by them. They have served as the connecting link between the public and the schools, and have done much towards creating a better understanding and a finer cooperative spirit between the two.

In some of the smaller communities, however, where the mission and purpose of these organizations is misunderstood, it also may happen that a meddlesome attitude is likely to develop. The public school association here becomes a rival to the school board. It becomes wedged into a turmoil of neighborhood prejudice and feeling that lends itself to retaliatory methods and to an attitude that spells nothing less than the usurpation of school board authority.

In a New England town, just such a state of affairs recently developed. The local newspaper, which is inclined to support the larger crowd as against the smaller, voices its opposition to the school authorities in the following manner:

"When a school committee becomes so self-centered that it does not care to confer with parents on the conduct of the schools, it is time to make a change. Parents, first, last and always, should have the power of directing the school system of any community. They, more than any other class of citizens, are most concerned."

In this instance the question whether the parents have been consulted to the extent, and in the manner that they ought to have been consulted, matters less than does the fact that the direction of the schools is to be transferred from the school board into the hands of the parents. Those held responsible for the conduct of the schools are to be shorn of authority

and subjected to dictates of a public school association.

The case illustrates a situation that may be created when a number of parents banded together for a laudable purpose may lapse into a group of meddlesome busy bodies, and thereby become a public nuisance.

Primarily, the scope and function of the board of education must be borne in mind together with the thought that the school association must at all times stand in a helpful and cooperative attitude. The one body is directly responsible to the entire community for its acts, and the other is beholden to no one except its own membership. A proper recognition only of the function of each can obviate misunderstanding and trouble.

THE SPECTACLE OF FREAK SCHOOL LEGISLATION

Modern legislative halls are not free from the freak measure. The amateur statesman who desires to inform the world through some pet notion, dignified into formal bill, always makes his appearance. Sometimes the schools are his point of attack.

Thus, there come to us reports of strange school measures introduced in state legislative bodies. The newspapers exploit them, somebody laughs, and then, unless the proponent is stubborn about it, the measure sinks into oblivion.

But, the legislator who wants to reform the school curriculum, the conduct of the teaching forces, the character of the textbooks, and what not, pops up periodically. And sometimes he manages to slip something through the mass of legislative measures which, if it does not belong to the freak class, is on the whole bad legislation. Thus, state school book printing plants, the manufacture of school furniture and of American flags by convict labor and other ill advised things have come into existence.

Then there is the fellow who is displeased with some board of education who, in a resentful mood, introduces a measure whereby all boards of education are to be abolished and the government of the schools placed in the hands of a committee of aldermen.

There is perhaps little danger that so-called freak legislation of a definite character and, as applied to the maintenance of schools, will receive serious consideration, but there is no assurance that the undesirable, bordering on the freak type, may not at times over-ride the barriers of common sense and reason.

If some of the school laws now on the statute books of several states are positively obstructive to school progress, it is not only because men could not look far enough into the future, but because legislators exercised downright poor judgment. They allowed too much of the freak spirit to enter into their deliberations.

ONCE MORE THE ELECTIVE VERSUS THE APPOINTIVE BOARD

The relative merits between the elective and the appointive board of education have been thrashed out so often that one would imagine the question to be settled for all time. But, the issue arises wherever a change from one to the other system is contemplated.

And, then comes to the surface the contention that has been heard again and again. One side defends the elective because it is more democratic, and the other holds to the appointive because it secures a higher type of men. Both are right as far as the general reasons here advanced are concerned.

But, the facts are, that while the elective system is practical for all medium and small sized communities, the appointive is more desirable for the large metropolitan cities. When communities become so large that information

on the relative merits of candidates becomes too difficult, the appointive system must be resorted to.

The average American community, however, permits a full knowledge of the character of the men and women that aspire to school board honors. Hence, the elective system is both practical and desirable.

At New Haven, Connecticut, a movement for an elective board of education has been inaugurated. Note what the editor of the Register of that city says:

"Some persons are arguing for a board of education elected by popular vote on the theory, that such a body would be less susceptible to political influence than an appointed board of education. The foundation upon which they base their reasoning is not apparent. Popular elections are proper and necessary accompaniments of democratic government, but it cannot be denied that they are the source of what is called playing politics. The game of politics depends for existence upon the popular election. The ultimate object of playing politics is to gain votes. Hence, those who indulge in this pastime will pay most attention to the politically organized and the politically powerful.

"Certain offices purposely are filled by appointment in order to keep them as nearly as possible free from political influence. That is why judges usually are appointed rather than elected. That is why educational administrators should be appointed rather than elected.

"The teachers of New Haven schools are organized in the New Haven teachers' league. The parents who send children to school are not organized in any way. The taxpayers of New Haven are not organized in any way. If the board of education should be made elective, who can doubt that the teachers would not decide upon the persons they wanted elected to the Board and then use the power of their organization to obtain their election? Experience has shown that organized blocs and groups have a great deal better chance of getting what they want than the unorganized masses of citizens. To make the board of education elective would be to open wide the door to politics."

We have here an example of the apprehension and misgivings engaged in where actual experience with the elective system is not at command and also the line of argument indulged in. The people of New Haven are expected to be as conscientious in voting for school board members as are the people of other American communities. Nor is it likely that the teachers of that city will be more likely to resort to baneful political methods than they do elsewhere. And if they do, the citizenship that exercises its right of suffrage can successfully rebuke it.

Experience has proven that the elective system serves its purpose well. It places the choice of school board membership in the hands of those who must foot the school bill, with the result that capable representatives are usually

chosen. It is democratic in method, and what is more, it is American in spirit.

A NATIONAL HOME FOR RETIRED TEACHERS

The suggestion which has gone forth to the effect that a national home for retired teachers be established bears the ring of appeal and should receive more than passing attention. The nation cares for its soldiers and sailors that have been reduced to invalid or old age dependency. The humanitarian spirit, too, has found expression in the industrial field where old age homes for railroad workers, printers, etc., etc., are provided.

The American woman teacher who has reached a period in life where the ravages of age no longer permit her to serve the schools, becomes an object of sympathetic interest. She has rendered the nation an indispensable service and is entitled to the kindest consideration. And yet under the circumstances that attend her she may sink into the oblivion of a lonely recluse.

The pension system has done much to protect these veterans in the educational service against privation and want. But, that does not wholly complete the obligation that is upon society. If the retired woman teacher has no family connections she may be relegated to an isolated and lonely situation. The real problem is how to provide her with a home.

"The need of a home in old age is peculiarly the problem of the unmarried woman teacher," said Miss Olive M. Jones, former president of the National Education Association. "The large majority of men have families and look forward to the grateful care of sons and daughters. The unmarried woman teacher has no such future hope. A recent Chicago report showed that in a comparatively small number of schools there were 1,263 retired teachers known to be in need of care and companionship, and of 8,194 teachers questioned, 3,545 thought it likely they would eventually need the facilities which a colony or residence for retired teachers would offer."

This states the case briefly and convincingly. It remains for those concerned in the project to organize a movement along comprehensive lines, and set the proper forces in motion. The cause speaks for itself. With a proper effort the project can, within a reasonable length of time, be brought into full realization.

The thought naturally suggests itself that here is an opportunity for some philanthropist, who has large means at his command, to found a home for retired teachers and thus render a humanitarian service to the nation, and incidentally perpetuate his own memory.

WHAT SHALL BE THE TEACHER'S WORKING HOURS?

The question as to just what number of hours may reasonably constitute a teacher's working day comes to the surface only semi-occasionally. It seldom, however, becomes a matter of controversy between the administrators and the professional forces.

The adjustment, if any is needed, is usually found in the common acceptance of the thought that a teacher is expected to expend no more time in the schoolhouse than the duties of the office require and the time customarily given in other professional callings.

The fact that the teacher enjoys a longer vacation period and more vacation days than ordinarily go with other professional callings may compensate in part for the nerve-racking phases of schoolroom labors. Be this as it may, the average school administrator does not exact hours at the hands of teachers that are designed to undermine either their physical or mental welfare.

The real question as to the actual hours teachers are expected to devote to classroom service, does not hinge so much upon those devoted to the ordinary school routine as it does upon the time necessarily devoted to professional gatherings outside of the school hours, such as teachers' conferences, institutes, conventions and the like.

Here differences of opinion have arisen. Professional gatherings make for classroom efficiency. Should the time devoted to these be taken from the regular school hours, or should they be conducted outside of these hours?

Teachers' institutes and special courses are usually conducted during the vacation period. State educational gatherings are held in the autumn months and teachers are given leave of absence. Teachers' conferences as applied to individual schools and communities are held outside of school hours.

In Chicago, however, the question as to whether the time given to teachers' conferences should be taken from the pupils or the instructors recently became acute. For some years the conferences were held within the school hours. Then the new superintendent, William McAndrew, ruled otherwise. He contended that the pupils were entitled to 196 full school days in the year, and that the teachers must stand ready to devote some time for the promotion of their own professional proficiency, and the successful operation of the school plant as a whole.

Thus, the board of education ruled that the principals shall have the right to call conferences of teachers whenever necessary at the close of the regular school session and that it shall become the duty of the teacher to attend. The fairness of such a rule ought not to be disputed.

When teachers become loud in their protests against a rule of this kind, as has happened in Chicago, they do not express the true professional spirit and that loyalty to the cause of education which knows no time schedules or dollar marks.

The equities between school administrator and classroom worker, as to time and remuneration, must be observed. No one disputes that. But, in the exemplification of a cooperative spirit toward the achievement of the larger purposes of popular education, the professional factors should lead. It would seem to be within their province to set the pace in all that will make for the highest efficiency in schoolroom service.



CAN IT MAKE THE HANGAR SAFELY?



A WELCOME ENTRANCE.

The School Janitorial-Engineering Problem

IV—Work, Man-Power and Wages

Geo. F. Womrath, Assistant Superintendent in Charge of Business Affairs, Board of Education, Minneapolis, Minnesota.

Even a superficial study of the public-school janitorial-engineering situation reveals that this branch of public service has been universally treated in a very disjointed kind of way. Instead of being considered as a whole, the subject has almost invariably been taken up piecemeal. In one place it has been studied from the standpoint of: "What is the scale of wages which should be paid?"—the underlying thought being: "How little can we get janitors to work for?" From another place comes the question: "How many men should be employed?"—the interlined idea being: "How few men can we possibly pinch along with?" Elsewhere some one asks: "What work must be done?"—the thought back of the question really being: "How little work actually must be done in order to get by?"

Whenever these three questions are considered correlatively and answered honestly, the solution of the public school janitorial-engineering problem is imminent. In fact, no school system can ever hope to solve its janitorial-engineering problem, unless the following questions are considered from the foregoing standpoints:

1. What work is to be done?
2. What man-power is needed to do the work?
3. What wages should be paid?

Simple questions, are they not. And how easy it seems to answer them!

1. The work to be done is that which is necessary to maintain public school property in good condition and keep the buildings clean, orderly and comfortable at all times.

2. The man-power required is such as will enable employees to do all the work that should be done in an eight-hour day working industriously—just "leaning on the bit" but not requiring that the men be either driven or overstrained.

3. The wages paid should be a good living wage for each employee: sufficient to provide suitable food, clothing and shelter for himself and family, and to allow for a reasonable amount of recreation and amusement to brighten the pathway along which he travels, and a little cash left over for the proverbial "rainy day".

Briefly stated, the above summarizes the whole situation. However, the actual working out of each problem is a very complex matter.

1. What Work Is to Be Done

The items constituting the work to be done in and around a schoolhouse are known, in a general way, to all public-school business officials having anything to do with janitorial-engineering service. Nevertheless, when asked to specify these duties it is strangely peculiar how elusive they are, and it is rarely that mention can be made of any except the most conspicuous items. "Oh, washing floors, washing glass, heating, ventilating, and work like that," is the reply. As the writer has never been able to find a complete schedule of the activities comprising the duties of school janitor-engineers, a careful study was made of every duty performed by every one of the 320 employees in the 95 school buildings in the City of Minneapolis during a consecutive period of 365 days. This resulted in the following table of activities, the completeness of which lies in the fact that a record was kept for a full calendar year and thereby all seasonal activities were recorded.

Room Duties:

Blackboards—washing.
Corkboards—cleaning.

Clocks—setting, winding.
Door glass—cleaning.
Doors (inside)—lock and unlock.
Equipment—repairs to.
Erasers—cleaning.
Flags (room)—dust and store.
Floors—sweep.
Floors—clean and preserve.
Floors—mop with soapwater.
Floors—scrape spots and gum.
Fountains—clean.
Furniture—clean.
Furniture—dust.
Furniture—move a/c cleaning.
Garbage—removal from rooms.
Inkwells—fill.
Inkwells—wash.
Lavatories—clean.
Locks—break on lockers.
Mats, door—clean.
Mats, door—take in.
Mats, gym—clean and renovate.
Mud pans—clean.
Paper, etc.—pick up.
Plants—water.
Radiators—clean.
Radiators—dust.
Radiators—sweep under.
Railing, iron—clean.
Railing, iron—dust.
Rugs—clean and sweep.
Screens—removed.
Shades, elect—dust.
Shades, elect—clean.
Shades, window—dust.
Shades, window—raise and lower.
Sinks—clean.
Toilet bowls—clean.
Toilet bowls—flush.
Toilet bowls—salt.
Walls & Ceiling—dust or sweep.
Walls and Ceiling—clean.
Waste baskets—empty.
Windows—clean.
Windows—open and close.
Woodwork—clean.
Woodwork—dust.

Non-Room Duties:

Attendance cards—collect.
Building repairs.
Clay mixing.
Ink making.
Inspection.
Mop treating.
Moving equipment, etc.
(Not when cleaning).
Paper baling.
Preparatory work to cleaning.
Rubbish disposal.
Empty dust boxes.
Burning of rubbish.
Supplies distribution.
Toilet—supervising students.
Tool cleaning and repairs.
Towels—handling and distributing.
Consultation with officials, teaching staff, etc.
Lunch.
School for employees, attendance.
Supervision of janitors.
Telephone calls.
Trips, absence from premises.
Waiting janitors.
Bells—ringing.
Clerical, reports, etc.
Closing, turn off elect. switch and water, and lock building, etc.
Deliveries and handling.
Elevator operation.
Errands confined to premises.
Flag duties.
Fire drill.
Meter reading.
Inventories.
Preliminaries, open building, turn on water and electric switch, etc.
Emergency and accommodation service, either extra pay or gratuitous.
Carry books for teachers.
Class play, work attendant upon.
Election, work attendant upon.
Comencement, work attendant upon.
Playgrounds, work attendant upon use in summer.
Post office relay station, work attendant upon.

Paper sale, work attendant upon.
Distribution of milk, work attendant upon.
Social center activities, work attendant upon.
School programs, etc., work attendant upon.
Watchman and police duty.
Favors for instruction corps, such as
Getting dirt for plants.
Watering plants.
Ironing curtains.
Penalty infliction to students.
Divers errands.
Putting up and taking down draperies.
Minor handyman jobs.
First aid a/c students, employees and others.
Putting out fire.
Guide for visitors.
Moving.
Heating and ventilating.
Ashes, wet down and remove.
Boiler, clean inside.
Boiler, inject boiler compound.
Batteries, charge, inspect and test.
Coal samples.
Coal handling, load trucks, shove back in bins, receiving, etc.
Flues, blow and scrape.
Firing, includes banking, clean fires, etc.
Hot water tank, clean inside.
Inspection, heating and ventilating plant.
Mechanical equipment, clean (only heating and ventilating).
Mechanical equipment, repair (only heating and ventilating).
Mechanical equipment, testing (only heating and ventilating).
Mechanical equipment, oil and drain (only heating and ventilating).
Miscellaneous boiler room work, sweep up after firing, breaking boxes, putting fire-tools in place, etc.
Miscellaneous mechanical operation, includes:
Open and close dampers.
Start and shut down pumps, engines, etc.
Testing steam gauge and pop valve.
Blowing down boiler.
Open and close valves.
Soot removal.
Supervision, heating and ventilating crew.
Unoccupied time of heating and ventilating crew.
Washing.

Outside Duties:

Areaways, clean, remove rubbish, etc.
Building, clean outside on roof, marking on walls, etc.
Court, light, sweep, pick up rubbish, etc.
Gates, yard, lock and unlock.
Gardens, watering, trimming digging, etc.
Grounds, pick up rubbish, cut weeds.
Inspection of grounds.
Lawn, mowing, sprinkling, raking, trimming, pulling weeds.
Repair to walks, fences, grounds, etc.
Snow and ice removal.
Shrubbery care.
Walks, sand.
Walks, inside, sweep.
Walks, street, sweep.

The foregoing list of activities may vary somewhat in other cities, but not to any great extent, as the only marked differences will be due to soil and climatic conditions, character of the city's population, industrial development, and other local items. By-and-large, the list will cover every school system in the United States.

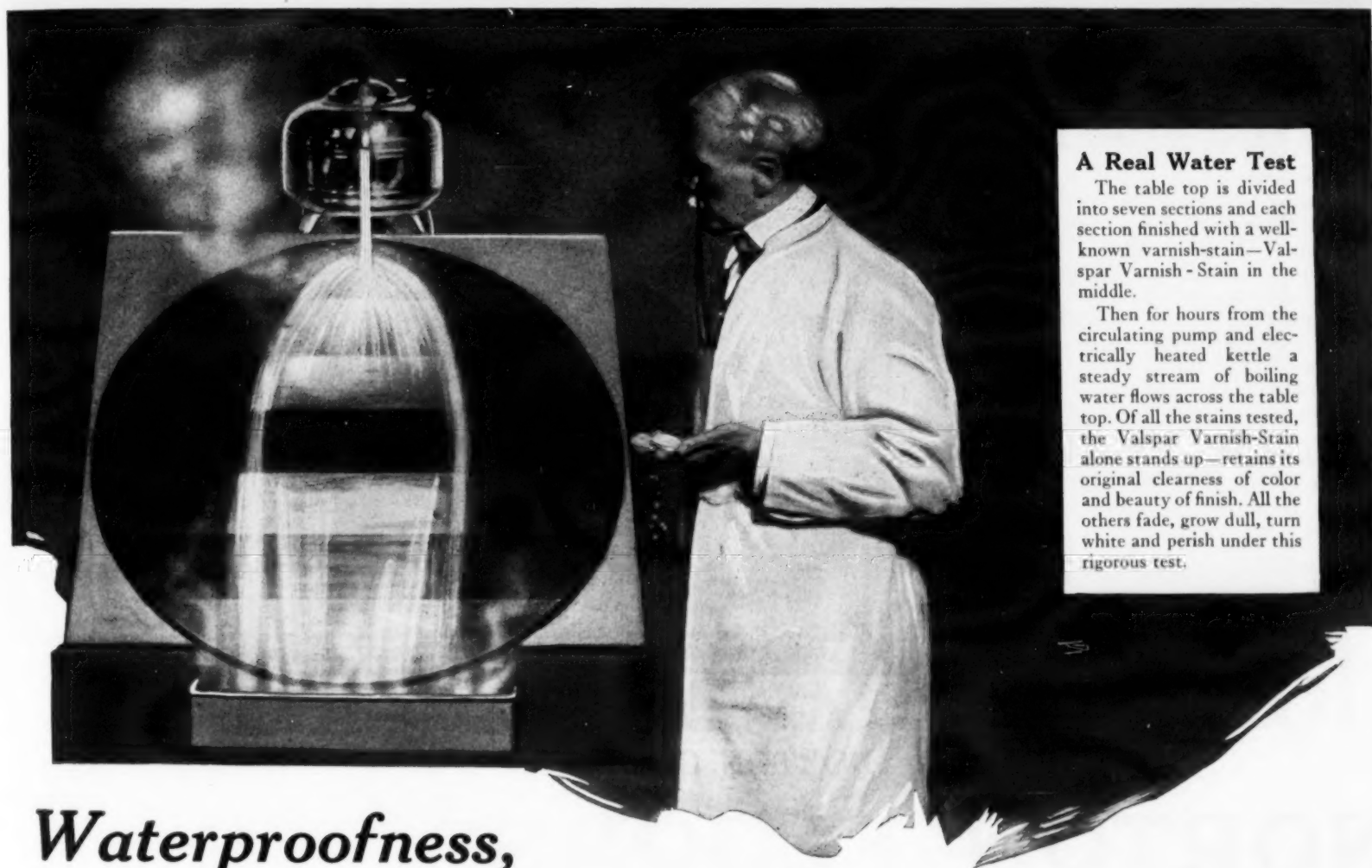
2. What Man-Power Is Needed to Do the Work?

This question divides itself into (a) finding the equivalent of one man-power, (b) the establishment of standards of performance and time factors, and (c) the scoring of buildings to determine the amount of work to be done.

(a) *The equivalent of one man-power.* There is but one way to determine the man-power, or total number of men, needed to do the work which should be done by janitors and engineers in a public school system; that is, to ascertain the total amount of work which has to be done, and then dividing this total amount of work by the equivalent of one man-power, which is the amount of work to be performed by an able-bodied, industrious workman in an eight-hour workday.

As it is absolutely impossible to measure a man's ability to perform a given task by his

(Continued on Page 70.)



A Real Water Test

The table top is divided into seven sections and each section finished with a well-known varnish-stain—Valspar Varnish-Stain in the middle.

Then for hours from the circulating pump and electrically heated kettle a steady stream of boiling water flows across the table top. Of all the stains tested, the Valspar Varnish-Stain alone stands up—retains its original clearness of color and beauty of finish. All the others fade, grow dull, turn white and perish under this rigorous test.

Waterproofness, Durability and Economy!

Absolute waterproofness is only one of Valspar's many unique qualities, but it is the one most readily demonstrated—as in the boiling water test illustrated above.

Combined with this waterproofness are many other unusual qualities—extreme elasticity and toughness, extraordinary resistance to wear and tear, ease of application and quick drying properties.

This happy combination of qualities,

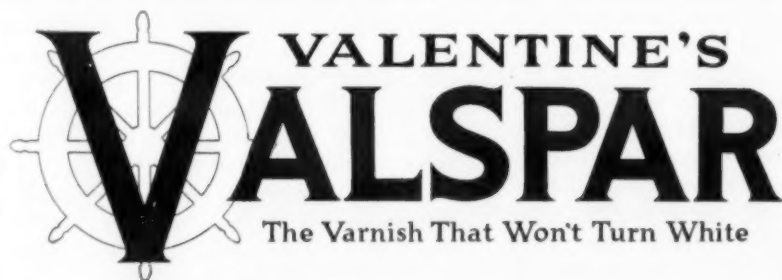
unmatched by any other varnish, makes Valspar the most durable varnish on the market. And because of this greater durability, Valspar is also more economical. Maintenance cost is reduced to a minimum. It keeps its good looks longer. It affords sturdy protection long after ordinary varnishes have perished.

Waterproofness, durability, economy—what more could you want in Varnish! *Anything that's worth varnishing is worth Valsparring.*

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New York Chicago Boston Toronto London Paris Amsterdam
W. P. FULLER & CO., Pacific Coast

This Coupon is worth 20 to 60 Cents



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I enclose dealer's name and stamps—20c apiece for each 40c sample can checked at right. (Only one sample each of Clear Valspar, Varnish-Stain and Enamel supplied per person at this special price.)

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Address.....

Your Name.....

Address.....

- | | |
|---------------------|--------------------------|
| Clear Valspar | <input type="checkbox"/> |
| Valspar-Stain | <input type="checkbox"/> |
| Choose 1 Color..... | |
| Valspar-Enamel | <input type="checkbox"/> |
| Choose 1 Color..... | |
| Valspar Book | <input type="checkbox"/> |

Am. S. B. Jnl. 4-23

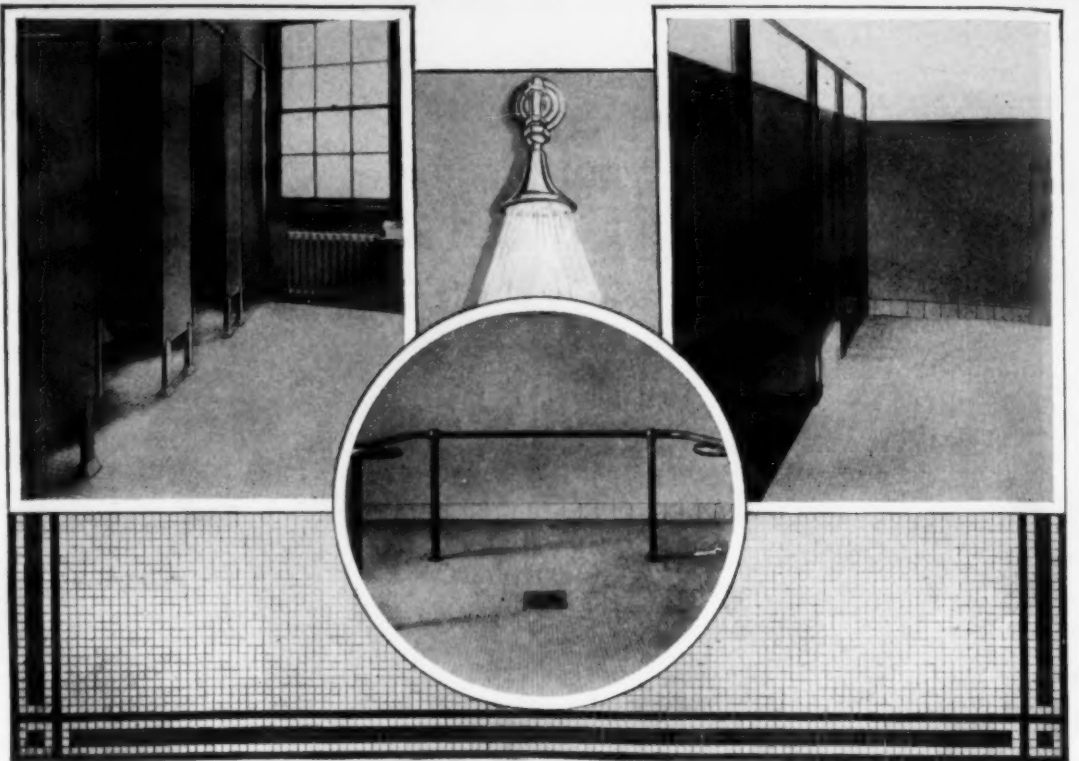
City.....

A Non-slip Surface— Wet or Dry

Floors made slippery by water are a source of danger to everyone but for the blind the danger is increased many fold. In the New York Institution for the Education of the Blind the architects, McKim, Mead and White, have nicely solved some of the problems by the use of Norton Floors. The floors of lavatories and shower rooms are gray Alundum Ceramic Mosaics $\frac{3}{4}$ " square. This tile, like all Norton Floors, has a surface that is slip-proof whether wet or dry. Even oil and grease do not lessen the slip-proof effectiveness.

There are many places in schools and public buildings where a floor of this type is desirable—where water is liable to create a slipping hazard.

All types of Norton Floors are made permanently slip-proof, durable and quiet by the bonded electric furnace abrasive trade-marked "Alundum"—long used in the well-known Norton Grinding Wheels.



Showing applications of the slip-proof Alundum Ceramic Mosaic Tile to places where water is usually the cause of a slipping hazard.

NORTON

NORTON COMPANY
New York Chicago Detroit

FLOORS



Worcester, Mass.

Philadelphia

Hamilton, Ont.

T-135

Alundum Tiles, Treads and Aggregates

(Continued from Page 68.)

physical strength alone, because of the many non-measurable elements entering into the situation, such as inclination, willingness, temperament, and so forth, the only satisfactory basis of measurement is time (minutes). On this basis, one man-power equals the number of minutes worked by a janitor or engineer during the year, or 132,960. ($5\frac{1}{2}$ days per week of 8 hours per day, or 44 hours per week for 52 weeks, less 9 legal holidays).* No allowance is made for absence from work for personal reasons, or for vacations and sick leave.

The figure 132,960, therefore, represents one man-power, or the amount of work in minutes to be delivered per year by every able-bodied, industrious workman in the service.

If it is the policy of the board of education in any particular locality to allow its employees a vacation with pay, or to grant any other absences with pay, such as sick leave, leave to attend funerals, and so forth, it will be necessary to figure what this lost time amounts to each year. This time must then be added to the time factor in order to properly determine both the man-power and the payroll budget. It is apparent if a certain man-power is carefully figured out for a school building, and then if several weeks of this labor is lost through vacations, sick leaves, and other causes, the work in the buildings must necessarily suffer or be performed by extra help. So, in order to keep up the work, extra men must be employed to offset the absences or lost time of the regular employees, and these extra men must be paid and their pay added to the regular payroll budgets of the respective buildings in which they are

employed. Short-time absences can often be made up by overtime work without pay, on the part of the regular men. This must be carefully watched as it is not always a question of willingness on the part of the regular men to make up lost time, but of having definitely prescribed work done at definitely prescribed times, and without imposing inconveniences upon teachers and pupils.

To illustrate how serious this situation may become, let us take a high school building in which the man-power needed has been figured to be ten men. If these men are paid \$100 each per month, the annual payroll would ordinarily be \$12,000. Now if each man is allowed two weeks' vacation with pay, and if each man averages an additional week's absence on account of illness and other reasons, the total loss of time will amount to 30 weeks, or approximately seven months. This means that it would be practically impossible for the regular crew of men to make up this amount of work. The proper way to handle the situation would be to put on an extra man for seven months and add his wages (\$700) to the payroll budget.

(b) *The establishment of standards of work performance and time factors.* As each duty or operation performed in a schoolhouse by a janitor or engineer requires a certain number of minutes of the employee's time, depending upon the proficiency or standard of precision with which the work is done, it follows that the total amount of work to be performed is determined by first, setting up standards of work performance and then establishing an average time factor for the performance of each operation or duty, and then adding all of the time factors together. It would be impossible to determine these separate time factors without having a standard of quality of work, as a measure of

the proficiency with which each operation or duty must be performed. While the standards of quality of work performed must necessarily be high, and constantly held up before the employees as being the ideal and perfect manner in which each duty and operation should be done, and which must be used as basic, it must, nevertheless, be fully appreciated that these perfect and ideal results cannot always be exacted in every building, because of its age, construction, or other local reason.

As the standardization of the quality of work to be maintained, or the precision with which the work must be performed, involves considerable of the human element it is one of the most difficult phases of janitorial service to cope with. In the final analysis, it is not the mechanics of the work which produce satisfactory results, but the exercise of the experience and initiative of the person in charge of the service. If the supervisor is endowed with high ideals and a keen appreciation of cleanliness, orderliness and neatness, and if to this is added an ability to impart these characteristics to others, this combination of qualifications will manifest itself in well-kept, clean, comfortable and sanitary school buildings.

Not everyone has this vision and initiative, and but few, therefore, are qualified to hold a supervisory position in this field of activity and able to set up proper standards of efficiency for the work to be performed, and to see that they are carried out. When such a person is found, the next step is to provide the means for him to impart his views to all the employees in the service and bring their viewpoint up to where they can be inspired to become thoroughly proficient in at least the performance of each day's work, even if their minds and their vision can-

(Continued on Page 72.)

*New Year's Day.
Lincoln's Birthday.
Washington's Birthday.
Decoration Day.
Fourth of July.

Labor Day.
Thanksgiving Day.
Armistice Day.
Christmas Day.



The "Open Air" School

The Fenestra-equipped school shown here is a "sunlight and fresh air building" just as Herbert Foltz, architect, intended it to be. It is the Theodore Potter School, Indianapolis, Ind., where over 4,000 sq. ft. of Fenestra in single and multiple units were used. It is an unusually fine example of open air construction by the Fenestra method.

Every school represents an individual problem. Light and air are required, *but in varying degrees*. The windows must open and close easily and quickly without warping and sticking. Fire-resistance is a highly desirable quality, while easy washing and low upkeep costs should be considered.

Fenestra Windows lend

themselves to just such problems of school construction. And there's a logical reason for this. Fenestra men are steel sash specialists. They have provided steel windows for every type of school building—Reversible windows, Counter Balanced windows and Pivoted windows like those shown in the Potter School.

And, equally important to those interested in school construction, every Fenestra window is backed by complete Fenestra service which includes layout, estimating, detailing, delivery and erection—every step from the inception of the plan to the complete window installation. We would like to have an opportunity to explain this service more fully. Write today and let us send you a copy of our "Blue Book of Steel Windows."

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Exterior and rest room of the Potter Fresh Air School.

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for schools and institutions
homes and apartments
commercial buildings
all industrial structures



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The student's eyes are not blinded nor fatigued by the evenly distributed light of the DENZAR. Blackboards, wall maps and charts are adequately illuminated as well as the desk tops.

We shall be glad to send you on request further particulars of this ideal light for schools, or put you in touch with a lighting expert in your own town who can demonstrate its merits.

Beardslee Chandelier Manufacturing Company

219 South Jefferson Street

Chicago, Illinois

(Continued from Page 70.)

not be stimulated to see beyond the horizon of one day's routine.

Recently each one of a group of over three hundred men in the janitorial-engineering service of a large school system, with experiences varying from six months to thirty-five years, was separately analyzed as to his qualifications as a supervisor and leader. Only two men met the test and found to be possessed of the necessary initiative, imagination, vision and forcefulness to qualify them as supervisors and instructors.

When such leaders are found, the best and quickest way to get their ideas, methods and standards before the entire group of employees, is through a janitor-engineer training school. Only by having a training school of this character, with compulsory attendance at a requisite, can these standards be perpetuated and made uniform throughout the entire system.

During the time the above record was being made to ascertain the list of duties and activities in which the janitors and engineers in the school buildings of a large school system are engaged throughout the entire year, a daily time sheet was also kept by each employee, on which was recorded the actual time, in minutes, which he spent at each task performed. The total number of minutes worked by each employee, when added together at the end of each day had to equal the time spent on duty, and this always equalled a working day of eight hours, or 480 minutes, unless there was overtime or under-time allowed. This record, therefore, gave very complete information as to the time required in a large number of buildings to perform similar duties and operations under widely varying conditions, as in no two buildings were similar duties performed under exactly the same conditions.

In order to arrive at an average time factor for each operation and duty, which could be used as a basis for scoring every building in the system, it was necessary to mentally conceive three model school buildings, one for each type of school, namely, an elementary school, a junior high school and a senior high school, each model building complete in every detail and comprising every kind of room that might be found in any building in the city of its type. It is evident that the model building of each type would have to be composite of all buildings of each type in the city. That is, if in all the elementary buildings in any school system thirty different kinds of rooms could be found, the composite model elementary building would have to be conceived as made up of all of these thirty rooms, although in reality perhaps no one building would have all of the thirty rooms in it.

From the reports sent in from the school buildings time factors were established for every type of room found in the city. Ideal or model rooms of each kind were picked from schools all over the city, with janitorial time factors selected for these rooms in the respective buildings, and set up as the average time factor for the rooms in the composite building which, as has been stated, was mentally conceived as made up of these ideal rooms. To illustrate: The kindergarten in the Agassiz School was selected as the ideal kindergarten and was included in the composite building as the standard kindergarten room. The time factor required to take care of this kindergarten was set up as the average with which to compare or score all other kindergarten rooms in the city. The gymnasium in the Cooper School was included in the ideal composite building for the same reasons. In like manner the entire composite building was conceived and time factors established. All of the ideal rooms in the composite

building were picked out because (a) they represented the ideal rooms of their kind to be found anywhere in the city as to size, arrangement and equipment; (b) the manner in which the janitorial service was performed approached most nearly the standard of quality of work as set up by the supervisor. While this does not mean that the work performed was perfect, it did represent a very high class of work performed by janitor-engineers having received training for several years in the Janitor-Engineer Training School, and who, therefore, performed their work more nearly in accordance with the standards set up by the supervisor than did the work of the janitors and engineers in other school buildings in the city who did not have this training.

Having established the standards of work performance and having set up average time factors, the total amount of work to be performed is found by multiplying the items of work (see page 68) by the time factors. The data required before this simple mathematical procedure can take place is not, however, to be obtained without scoring every building in the school system, and this is the most difficult part of the entire procedure. This can only be done with the aid of the score card, which is the list of items of work with the average time factors placed opposite each item.

(c) *The scoring of buildings to determine the amount of work to be done.* The statistics of every school system should readily yield complete data about every school in the system; the cubic contents; floor area; area of glass in windows and furniture; size, kind and number of boilers, pumps, ventilating fans, toilet fixtures, drinking fountains, etc.; kinds and condition of floors and whether made of cement, wood or other material; and so on. If this data

(Continued on Page 74.)

Pittsburgh Proof Products

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It shows no laps or brush-marks and coats walls with a smooth, poreless film which dirt and grime cannot penetrate. Easy washing takes the place of re-decorating for years. Seventeen colors, for homes, busi-

ness buildings, schools, hospitals, etc.

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Luxor Shade Cloth and Standard Shade Rollers

Fulfil Every School Room Requirement



This window shade installation is the simplest and most satisfactory method of controlling light and ventilation conditions in a schoolroom. Nothing to get out of order. No disfiguring adjusters. No needless expense.

Considerations

In schools the selection of window shades assumes greatest importance. The chief considerations are—durability and economy—appearance—minimization of eye strain—sanitariness—ventilation.

Endurance—Economy

The close woven, unfilled fabric of **Luxor** cloth supplies the unusual strength and wear-resistance needed to withstand the careless, rough handling by children. Its enduring qualities represent the greatest economy. Even after long use **Luxor** retains its shape and pleasing appearance. It will not become unsightly and misshapen as happens soon with unsized and unstretched materials.

No Eye Strain—Best Colors

With **Luxor** shades the glare of the sun is replaced by a cheerful diffused light, restful to the eyes, and sufficient for usual school room activities. Neutral colors such as Slate, Linnette, Pongee, and Maize are best for schools, being most agreeable to the eyes.

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The unsanitary features of so-called canvas or other coarse-fabric materials which catch and hold dust and germs are missing in **Luxor**, whose finely-woven, hard-finished surface offers no lodgment for particles of foreign matter. The surface of **Luxor** cloth may be cleaned by using a damp cloth, with soap if necessary. Finger marks and soil spots may be removed simply by the use of art gum.

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Proper ventilation of a school room is of vital consequence. By installing two shades to each window at the center, any combination of air and light both at the top and bottom of the windows may be secured. This arrangement will also save the shades from flapping or sucking in the breeze, thereby eliminating disconcerting noises and harm to the fabric. Adjusters are a needless expenditure. They detract from the appearance of the windows and easily get out of order.

Caution

The injudicious selection of shade fabrics and shade rollers which are hardly beyond the experimental stage, new and untried, has brought expensive results in a number of cases. For school work, shade satisfaction is wanted not only in the beginning but for years to come. Wisdom lies in choosing **Luxor** cloth and **Standard** rollers, back of which stand the experience and integrity of one of the largest and oldest manufacturers of such goods. These products have proven their merit over a long period of time and in thousands of the country's finest buildings.

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(Continued from Page 72.)

is not available there are other weaknesses in the school system besides the janitorial-engineering service which need attention. From this data, and with the help of the score card, the classification of every building can be definitely determined as compared with the model building. Unless this classifying is correctly done it is absolutely impossible to intelligently assign to any building the right number of janitor-engineers to properly take care of it. Assignment of man-power in any other way is pure guess-work.

Let us now see just how the scoring or classification of buildings is done.

The supervisor of buildings, or someone delegated by him, first familiarizes himself with the ideal rooms at the various school buildings used to make up the composite building and carefully studies them in every particular, as it must be remembered that these are the rooms which have been selected to make up the model building and which have established the average time factors. Also the grounds and neighborhood, the characteristics of the children attending, etc., must be studied. Now with these rooms constantly in mind and the score card in hand, the scorer goes to a building and proceeds to score it. The work which has to be performed in this building is compared with the work as performed in the model school, (item by item, room by room, and department by department); each item and room on the score card is rated as much above, or as much below, the standard rating as a comparison of the building being scored with the model building indicates that the work is either harder or easier to perform. While the scoring is being done it may be necessary for the scorer to frequently go back to the rooms selected for the model building, in order

to make proper comparisons of the ideal rooms and work with the rooms and work he finds in the building being scored.

The following illustration will help to visualize how the scoring is done. Let us suppose that the first school visited for scoring has old worn-out floors, with rough cupped boards, and cracks between the boards so wide that cleaning solutions must be used very carefully and sparingly lest they run through the floors and ruin the ceilings of the rooms below. All of these conditions tend to make sweeping and cleaning very much more difficult in this school, as compared with the cleaning of the fine floors in perfect condition in the model school. The inspector may decide that the floors in the school being scored are twice as hard to take care of as are the floors in the model school, so he doubles the rating for the floor cleaning item in this school as compared with the standard rating for the model school.

Next the inspector notes that the neighborhood at the school being scored is old and tending toward industrialization. There is a great deal of dirt and smoke everywhere. The neighborhood is fully three times dirtier than the neighborhood in which the model school is located. The scorer, therefore, triples the rating for the neighborhood item, as compared with the standard rating for the model school.

Next, the scorer observes the playgrounds at the school being scored are very small, have a very good surface and do not become muddy in wet weather. There is no lawn and no shrubbery to take care of. The inspector decides that these grounds can be taken care of in one-tenth of the time required to take care of the grounds at the model school. He therefore, rates the care of grounds item at one-tenth of the standard rating for the model school.

Thus, he proceeds until the entire score card is filled out. The unit ratings are then multiplied by the number of units of each kind of work and then added. The total of the points is then divided by 132960 and the result is the man-power or number of men required to take care of the building. If the total number of points equals 265,920, the building is classified as a two-man building. If the total number of points equals 332400 points, the building is classified as a two and one-half-man building, which means that two men are employed for twelve months and one man for six months.

As all classification is merely a matter of comparison, any city in the United States can classify its buildings by first setting up a model building made up of the best kept rooms in the city, and then using this model building as the standard toward which the city wishes to advance. The ratings listed on the score card may also be used without risk of overloading the employees in the system with work, for the reason that these ratings were based upon a very high standard of work and any other school system which exacts less efficiency from its employees will need less men. That is to say, if the score card presented in this treatise is applied and it is found that when the ratings are added the total shows that each man employed is doing less than 132,960 units of work, the obvious conclusion must be that the men have a lot of extra time on their hands, from which it will follow that too many men are being employed. On the other hand, if when the ratings are added the total shows that each man employed is doing more than 132,960 units of work, the inference will be that the men are being overworked.

(To Be Continued.)

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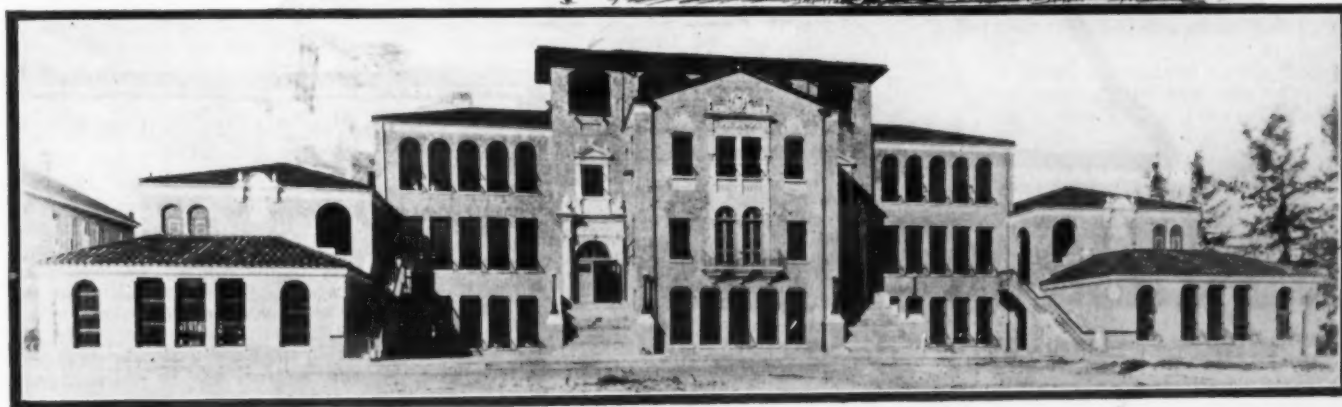
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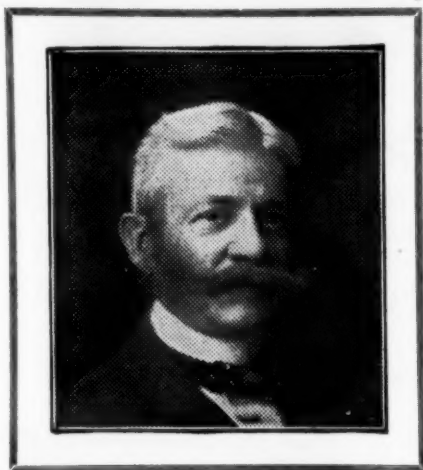
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Schools and School Districts

The Illinois laws of 1923, p. 584, § 84g, subsec. 4, requiring county superintendent of schools, on petition of half the legal voters of territory sought to be detached from the consolidated district, to call election, is mandatory, not discretionary, as under subsection 2, authorizing such detachment by the superintendent, without election, on petition of two-thirds of the legal voters.—*People v. Lukenbill*, 145 N. E. 294, Ill.

Under the Kansas revised statutes, 72-818, a school district which has failed to maintain school for at least seven months in each year for a three-year period, and during such time has made no provision for sending pupils to other schools, and for payment of their transportation and tuition, may be disorganized, and it is the county superintendent's duty to execute the statute and to attach territory to adjacent district, preferably to one maintaining a graded school offering high school course, or to one or more adjoining districts, at the discretion of the superintendent, and the board of county commissioners has no official concern therewith by appeal from the superintendent's action, notwithstanding sections 72-213, 72-214, 72-309.—*Union School Dist. No. 2 of Sheridan County v. Starrett*, 230 P. 324, Kans.

Where the school district had failed to maintain school for at least seven months in each year for a period of three years, and during such time had made no provision for sending pupils to other schools, the action of the county superintendent in disorganizing the district and attaching its territory to other district, under the Kansas revised statutes 72-818, providing for such disorganization of the district and for the sale of its schoolhouse, it is held not an abuse of discretion, though another district which had lost its schoolhouse by tornado, without funds to rebuild, desired the use of a school-

house in the district so disorganized.—*Union School Dist. No. 2 of Sheridan County v. Starrett*, 230 P. 324, Kans.

School District Government

Two trustees of the graded school district board had no authority to bind board, by agreeing to stipulations and conditions under which subscriptions to school fund were made, since, under the Kentucky statutes, § 4469, a district can only speak through its officers or agents, duly authorized to represent it at a regular meeting of the board.—*Lewis v. Durham*, 265 S. W. 934, Ky.

A board of education is a corporate body, and its members are not individually liable for the board's failure to perform a duty imposed by statute.—*Johnson v. Board of Education of City of Hudson*, 206 N. Y. 610, N. Y. App. Div.

The duty of a board of education to guard a buzz saw in a high school manual training department did not run in favor of a stranger or a student not authorized to use the saw.—*Johnson v. Board of Education of City of Hudson*, 206 N. Y. S. 610, N. Y. App. Div.

School District Property

Under the Wisconsin laws of 1907, c. 459, § 7, a board of school directors rather than the common council of the city, have authority to select sites, adopt plans, and make contracts for the erection of schoolhouses notwithstanding such contracts are to run in the name of the city and be countersigned by the city comptroller and approved by the city attorney.—*H. Schmitt & Son v. City of Milwaukee*, 200 N. W. 678, Wis.

A schoolhouse construction contract providing that the board of education may require a bond for faithful performance of the work with sureties as the board may approve is not binding on such board until the bond required has been given by the construction company and approved by the board.—*Vandenberg v. Board of Education of Wichita*, 230 P. 321, Kans.

Contractors, subcontractors, and persons furnishing materials and labor for building for a Connecticut school district, have no claim against the district unless officers of the district have received a bond from the contractor, under the general Connecticut statutes of 1918, § 5221.—*Ninth School Dist. of Manchester v. Rogers*, 145 N. E. 278, Conn.

The authority of officers of a school district to make a contract for the construction of a recreational building was conditional on receipt of a bond from the contractor; general statutes of Connecticut for 1918, § 5221, being mandatory.—*Ninth School Dist. of Manchester v. Rogers*, 145 N. E. 278, Conn.

There can be no recovery for a breach of contract for the erection of a school building providing for a bond to be approved by the board of education, where the bond offered was disapproved, in the absence of a showing that such disapproval was unreasonable, capricious, or in bad faith.—*Vandenberg v. Board of Education of Wichita*, 230 P. 321, Kans.

The duty of a board of education to instruct and to control work in the manual training department of a high school is delegable, and the board is not liable for negligence of teachers or employees.—*Johnson v. Board of Education of City of Hudson*, 206 N. Y. S. 610, N. Y. App. Div.

A rule of the respondeat superior does not apply to the board of education.—*Johnson v. Board of Education of City of Hudson*, 206 N. Y. S. 610, N. Y. App. Div.

Where a buzz saw, in a high school manual training department, complied with the New York Labor Law and rules of the labor department, in being furnished with a movable guard, which could easily be placed on the saw, so that the operator could not be injured, the board of education would not be liable for injuries to a student received solely because of his failure to place guard over the saw.—*Johnson v. Board of Education of City of Hudson*, 206 N. Y. S. 610, N. Y. App. Div.

Where a manual training student in a high school was injured when a piece of wood which he was cutting struck against an unguarded belt operating a buzz saw, which threw his other arm against the saw, the unguarded belt was the cooperating cause of the accident.—*Johnson v. Board of Education of City of Hudson*, 206 N. Y. S. 610, N. Y. App. Div.

A school board was not liable for failure to guard a belt operating a buzz saw in a high school manual training department, if such failure was not the approximate cause of the accident.—*Johnson v. Board of Education of City of Hudson*, 206 N. Y. S. 610, N. Y. App. Div.

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School District Taxation

When the total of valid contracts, wholly or partially performed, together with all other expenditures made by school board equal amount of approved estimate for current expenses in any fiscal year, the limit of legal indebtedness of the district has been reached, and any person thereafter contracting with such board is charged with knowledge of the invalidity of its acts and is precluded from recovery against the district, in view of the Oklahoma constitution, art. 10, § 26, and the Oklahoma complete laws of 1921, § 8638 (laws 1910-11, c. 80, 9).—Myers v. Independent School Dist. Consol. No. 1, Comanche County, 230 P. 498, Okla.

School District Claims

Where a buzz saw in the high school manual training department was equipped with a movable guard, which would have prevented an accident, instruction that the school board was liable because it permitted the guard to be so attached as not to protect the student, injured because of his failure to use it, it is held likely to mislead jury into the belief that the board was liable for the negligence of the teacher in failing to see that the guard was placed over the saw when the student used it.—Johnson v. Board of Education of City of Hudson, 206 N. Y. S. 610, N. Y. App. Div.

Teachers

A school district board, as such, has sole authority to bind the school district in the employment of teachers in the public schools.—Stewart v. Board of Education, School Dist. No. 2, Stephens County, 230 P. 504, Okla.

A school district board contract with a teacher, entered into prior to the annual meeting and approval and allowance of the estimate for current expenses by excise board, approved by the county superintendent, and in all other respects regular and lawful, is entire and not separable under the Oklahoma statutes of 1921, § 10367, and the total thereof becomes an obligation of the district if within the limits of estimate when made and approved by the excise board.—Myers v. Independent School Dist. Consol. No. 1, Comanche County, 230 P. 498, Okla.

Permitting a school teacher, who has executed a contract with the city superintendent

of schools, who was authorized and directed by the school district board to select and contract with the teacher, subject to its approval, to enter on her duties as a teacher and payment of one month's salary, are held ratification rendering a contract valid from its inception.—Stewart v. Board of Education, School Dist. No. 2, Stephens County, 230 P. 504, Okla.

The fact that a school district board after a lawful contract with the teacher recklessly or ignorantly exhausts an appropriation for other purposes before the completion of the teacher's contract, and then refuses payment for want of funds cannot militate against the teacher's right to compensation for services under the contract.—Myers v. Independent School Dist., Consol. No. 1, Comanche County, 230 P. 498, Okla.

A teacher who applied for retirement under the New York Education Law, § 1109-a, and elected to accept a lesser amount, and designated beneficiary of balance of her allowance, and filed physician's affidavit showing her illness to be incurable, is held entitled to retirement, and the retirement board's postponement of action on application, and delay of medical examination, required by section 1109-c, before which she died, could not prejudice her rights.—Fitzpatrick v. New York State Teachers' Retirement Board, 206 N. Y. S. 546, N. Y. Sup.

A rule of the state retirement board, requiring applications for retirement for disability claims, under the New York Education law, 1109-a, to be filed thirty days before final action is taken thereon, is arbitrary, and unwarranted by section 1103, and repugnant to the spirit of the statute, which should be broadly interpreted for the benefit of teachers.—Fitzpatrick v. New York State Teachers' Retirement Board, 206 N. Y. S. 546, N. Y. Sup.

LAW AND LEGISLATION

—The Indiana legislature has under consideration a teachers' tenure bill which provides that during the first five years of service in any school corporation, all teachers, principals, assistant principals and supervisors shall be regarded as probationary teachers, and that at the expiration of that period those who have been found competent and efficient in the service shall receive an indefinite tenure during good behavior and efficient service. It is provided

that if any teacher who has had this five-year service is employed later in any other school corporation, after one year of competent service in the new school he may receive an indefinite tenure. When a teacher withdraws temporarily from the service of any school corporation which has given him an indefinite tenure, and later is reemployed by the same school corporation, the bill provides that this reemployment, after a year of service, shall be on indefinite tenure.

—The teachers of Illinois point out that while the wealth of that state exceeds the twenty-two billion mark, it is assessed at four billions only, and urges tax reform measures. The state now spends \$125,000,000 for its grade and high school education. An educational commission, headed by W. W. Lewton of Cicero, holds that this sum could be more wisely expended. One of the recommendations calls for a new plan for distributing the state school fund by giving aid to weaker districts, stimulating local interest and initiative, and rewarding trained teachers.

—The assistant attorney general of North Dakota has issued an opinion to the effect that school authorities may suspend the issuance of free textbooks. The Bismarck board of education proposes to avail itself of the opinion.

—Educational bills now pending in the Pennsylvania legislature provide a salary of \$6,000 for the controller in school districts of the first class, a rebate of one per cent on school taxes if paid by August 1, and penalties for delays, requiring superintendent to send school code to every school director, and imposing annual voting tax of \$10 for school property.

—Clyde I. Blanchard, late secretary of the Berkeley, California, board of education, indicted for embezzling \$12,500, has pleaded guilty. Before receiving sentence, he was allowed to assist the accountants in straightening out the muddle. He was sentenced to ten years' indeterminate imprisonment.

—The attorney for the Muskogee, Okla., board of education has ruled that Superintendent William G. Masterson, who was dismissed, is legally out. The opinion briefly states that owing to the status of the case at the present time, since Masterson is neither declared guilty nor exonerated, under the conditions under which he

(Concluded on Page 80.)

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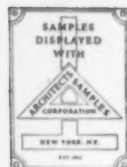
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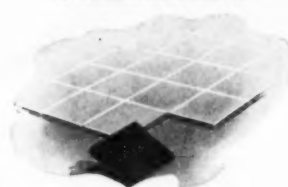
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(Concluded from Page 78.)

was relieved by the school board, he would have to be replaced by the board before he could legally hold the office of city school superintendent.

—The Supreme court of Massachusetts has decided it is within the province of the school board to fix salaries and of the city council to provide the means. The Fall River Herald in discussing the decision says: "There can be no more passing the buck hereafter between mayors and the school committees in the matter of salaries to be paid to school teachers. The Supreme court has just interpreted the law. It says in effect that a city must find the money for whatever payroll the school board establishes. If the budget allowance to the school department is overdrawn, the deficit must be made up. In the course of an opinion pronounced by Chief Justice Rugg, he declares that 'the only supervision the city councils or towns can exercise over the school committee is to vote to close the schools after they have been kept the length of the term specified by law.' This appears to make the committee independent of the city council in every other respect than the one stated. In details of school expenditures the vote of the school committee cannot be vetoed."

—The court at Northwood, Iowa, has decided that the school board has full authority in making vaccination compulsory. The court says: "An epidemic of smallpox cannot exist where one hundred per cent of the population has been vaccinated. Where even one case of smallpox appears in a small town, the people should be vaccinated. School children should be vaccinated, because of their close contact with one another. A successfully vaccinated person cannot take smallpox within five years after the vaccination."

—A bill has been introduced in the California legislature whereby "city boards of education shall have power and whenever in their judgment the best interests of the schools are served, to prescribe a uniform dress to be worn by students attending junior high school, high school and junior college." The Sacramento Union, in commenting on the bill, says: "The proposal is for an entirely unwarranted use of the state's police power and disregards not only

the individual wishes, desires and rights (if they have any) of the boys and girls, but also those of the parents. Imagine mothers and fathers submitting to a city board's command that James wear suspenders instead of a belt and that Louise wear a gingham frock instead of a chambray."

—In commenting on the free textbook bill now pending in the Indiana legislature, the Indianapolis Star says: "With the introduction of a bill to provide free textbooks for public school pupils all the stock arguments which have been offered for a number of sessions can be taken down from the shelf, dusted off and used over again. There is little new to be said on either side of the question. Indiana heretofore has taken the attitude that privately owned books are better than volumes supplied by the school authorities and that the parents should be sufficiently interested in the educational progress of their children to purchase the necessary books. The state already has made provision for supplying books to children whose parents cannot afford to buy them. It is true that the advocates of free textbooks have arguments on their side but on the whole it is not likely we shall abandon our present system."

—A bill providing for county boards of education and the appointment by that body of the county superintendent of schools was indefinitely postponed by the Nebraska legislature. The bill was proposed by the Nebraska schoolmasters' club and opposed by the rural school directors.

—A measure in the North Dakota legislature proposes a reduction in the cost of school transportation. In commenting on the measure, the Fargo Forum says: "Transportation of school children, a policy adopted many years ago on the theory that the expense of taking children to school should be equalized as between those living remote from the schools and those fortunate in having schools close by, has degenerated to a point where the main objective has long since been lost sight of. In many school districts the expense of transportation has ascended to the point where it exceeds the teaching expense, and the schools have been affected adversely through limitation of expenditures for instruction. Extension of the zone outside of

which transportation payments shall be made, and sharp decreases in the allowances as well as the establishment of a uniform basis of payment for various classes of schools, would seem advisable and essential if any inroads are to be made on the million-dollar-a-year tax that is now levied to meet the transportation charge."

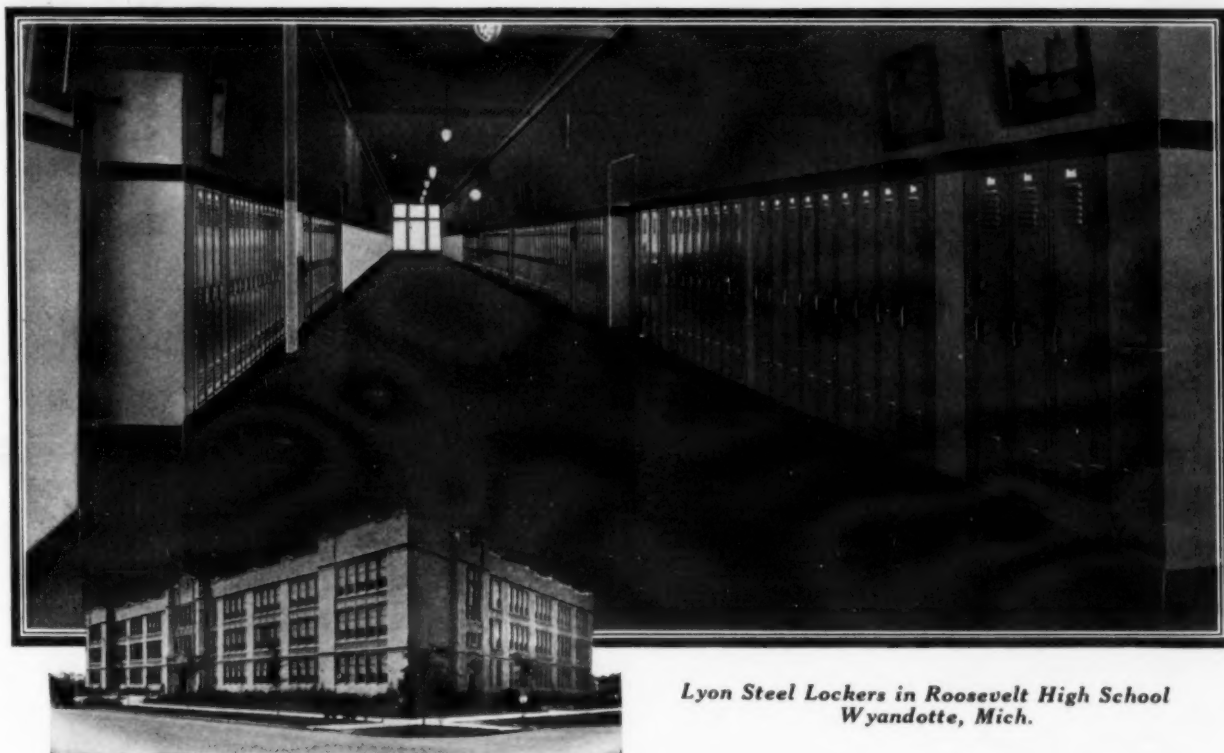
—B. J. Rohan was elected on January 5, 1925, to the superintendency of the Appleton, Wis., schools. The city attorney now holds that the election was illegal, since the city charter provides that such election shall take place in the month of June. The board of education will seek a remedy at the hands of the legislature.

—The Wisconsin state department of education has issued the following rulings: Teachers' Contract.—A teacher holding a contract legally entered into in behalf of the district may be dismissed for cause during its continuance but the burden of proof must always rest with the party that terminates a legal contract. School Loan Bonds.—The fact that the present day assessed valuation of a bonded school district is less than at the time the bonds were issued, does not in any way affect the validity of those bonds.

—A bill introduced in the Iowa legislature proposes to make the county school superintendency an elective office. Thereupon the Sentinel of Shenandoah, Iowa, remarks: "It is harking back to the old idea that an office is a political plum to be passed about, and not a job of work to be given to somebody to do well, something for which an efficient and capable person should be picked."

—The Indiana legislature has a measure under consideration, whereby corporal punishment is to be a matter of agreement between parent and teacher. Superintendent J. O. Engleman, of Terre Haute, in discussing the proposed law, says: "Corporal punishment should be used sparingly always and only as a last resort. It is unwise and unsafe for a teacher to punish a pupil when angry. To punish by striking him on the face or head, slapping or pulling his hair, should never be allowed. It simply serves to make the child vindictive and angry in turn and never serves the purpose of discipline, but I am not so sure of the wisdom of a law which would make the teacher wait for a consultation between parent and guardian."

LYON STEEL LOCKERS



*Lyon Steel Lockers in Roosevelt High School
Wyandotte, Mich.*

Lockers on a Par with the Structure

In selecting locker equipment, the builders of Roosevelt High School, Wyandotte, Michigan, sought something as permanent as the brick, stone and steel of the structure itself.

That they found what they wanted in Lyon Steel Lockers is evidenced by their setting the lockers into the walls and making them a part of the building.

They could do this because the frames of Lyon Steel Lockers are strong and stay in alignment. The doors will not sag or jam. The finish—they selected ivory grey—is lasting. The locks are strong and positive.

Not only are the corridors of all three floors equipped with Lyon Steel Lockers but also the boys' and girls' locker-rooms, and the machine room where trades are taught.

In this million dollar high school there are over 2700 Lyon Steel Lockers. For large installations or small there is no better investment because Lyon equipment lasts.

Your plans may be in just the stage now where our nation-wide experience in equipping schools will be most valuable to you. Write us about your requirements.

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AMERICAN SCRUBBING EQUIPMENT CO.
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A motion picture of the Finnell System in operation will be shown in your office upon request.

A Few of the Many Educational Institutions Using
The FINNELL SYSTEM OF ELECTRIC SCRUBBING

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Harvard University, Cambridge, Mass.	Board of Education, Richmond, Va.	Board of Education, Oakland, Calif.
University of Nebraska, Lincoln, Nebr.	Board of Education, Middletown, Ohio.	University of Kentucky, Lexington, Ky.
Board of Education, Baltimore, Md.	Board of Education, Elizabeth, N. J.	Michigan Agricultural College, E. Lansing, Mich.
University of Minnesota, Minneapolis, Minn.	Board of Education, Kalamazoo, Mich.	State Normal School, Potsdam, N. Y.
University of N. C., Chapel Hill, N. C.	Board of Education, Buffalo, N. Y.	Independent School Dist., Buhl, Minn.
St. John's Mill Academy, Nashotah, Wis.	Board of Education, Pawtucket, R. I.	Moler System of Colleges, St. Louis, Chicago.
		Mt. Clemens Board of Education Mt. Clemens, Mich.



SCHOOL FINANCE AND BUILDING

NEW JERSEY'S TAX DOLLAR EXPENDITURE

The share that the schools get out of the tax dollar and the manner of expending the school dollar in New Jersey has been brought out by the state department of instruction of that state.

The per capita costs of the various forms of governmental activity, basing the population at 3,465,257, is enumerated as follows: State government, \$7.33; education, state and local, \$19.67; municipal government, \$23.81; county government, \$10.19. Total, \$61.

FINANCE AND TAXATION

—The schools of Sioux City, Iowa, get a 71-mill tax, each mill bringing a revenue of \$25,000. It is now proposed to increase the tax to 75 mills, yielding a revenue of \$1,875,000. The mayor, who holds that the city administration only receives 48 mills, is opposed to the increase.

—The mayor of Providence, R. I., has vetoed the school board's \$300,000 schoolhouse construction program. The city council had voted favorably. It is believed that this body will override the veto.

—The Supreme Court of Illinois has declared operative the budget system of distributing school funds. Formerly, the distribution was made according to the number of pupils in the district. Under the budget system, distribution will be made on the statistics and regulated according to number of days each pupil attends school.

—Governor Hartley of the state of Washington has signed Senate Bill No. 50, providing for a state budget system for the control of all state funds expended for educational purposes by the institutions of higher learning. The system is intended to effect more economy in the administration of these institutions.

—Boston, Mass. In a request for additional money for schoolhouse construction, the school board points to the imperative need of an extensive building program to take care of present demands for more accommodations. The board points out that with the exhaustion of the present funds, there will still be 1,500 pupils in hired rooms, 29 in unsuitable rooms for class purposes and other things not conducive to the best educational progress.

—Indianapolis, Ind. The school board has been given a million-dollar loan, at an interest rate of 3.14 per cent. The loan was in anticipation of the annual taxes which will be due the board soon.

—Between \$15,000 and \$20,000 in interest will be saved annually by the school board of Oakland, California, during the life of the \$9,600,000 bond issue authorized by the voters of the district last November, according to Secretary John W. Edgemond. A transfer from capital to current funds has been authorized from time to time, eliminating the necessity of paying six per cent interest to banks where funds for current expenses are not available.

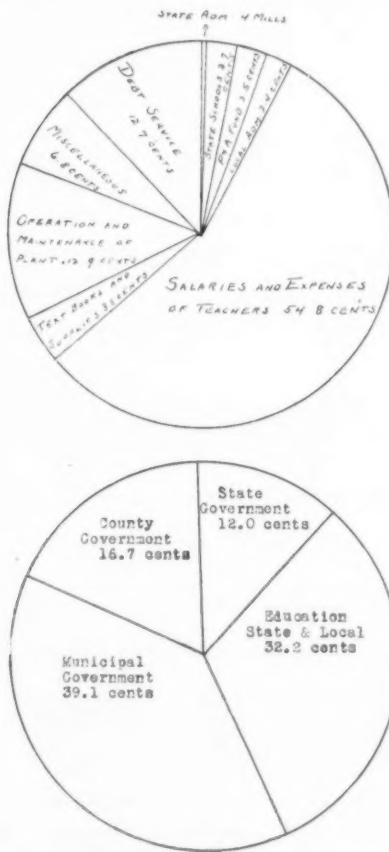
—Toledo, O. The sale of \$1,500,000 in four and one-half per cent bonds to complete the school building program has been authorized by the board of education. The money accruing from the bond issue will be used to erect the new Broadway and Harvard schools. The city gave the board permission to issue bonds not exceeding \$11,900,000 for these schools, and about \$4,000,000 of the amount still remains unexpended.

—A series of illuminating statistics have been compiled by Jasper T. Palmer, principal of schools at Mount Vernon, New York. Mr. Palmer brings out the fact that the nation's wealth in 1920 had mounted to \$250,578,155,336. The national income for the same year was \$70,000,000,000. The expenditure for 1920 was \$1,036,151,209. He then demonstrates that over seventeen billions of dollars are expended in one year for luxuries.

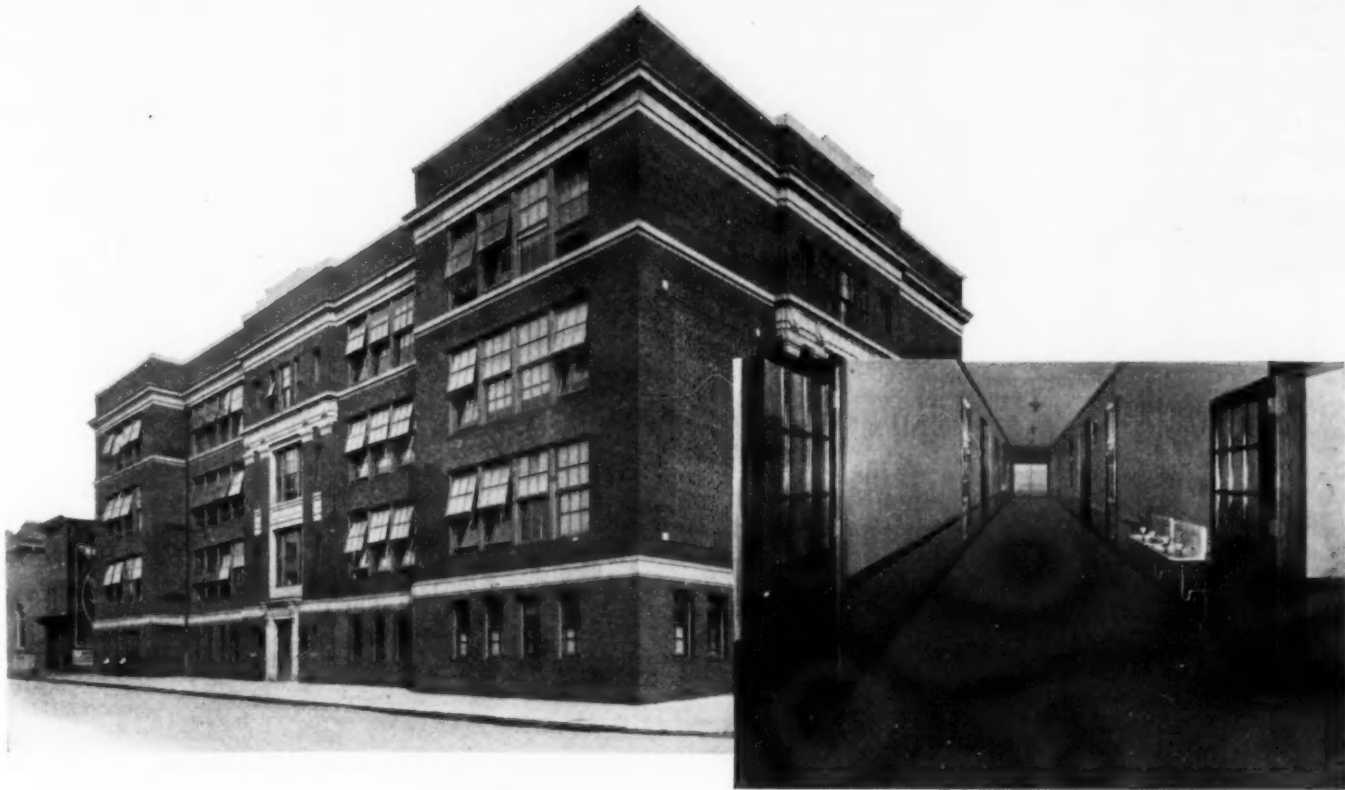
—Superintendent Howard Barker of Bangor, Michigan, has prepared a statement showing the cost of education, and the tax ability of Bangor in comparison with the several neighboring towns. The comparison shows that Bangor has a low tax rate. The schools are crowded and need enlargement.

—Former President Charles M. Moderwell, of the Chicago board of education, in a statement to delinquent taxpayers said: "More than \$3,000,000 was lost from the tax levy of the board of education of 1923 because of uncollected taxes. This amount of money would

(Concluded on Page 84)



FLOORING



Duraflex-A was given the hard job in the new School No. 112, Baltimore, Maryland—corridors, cloakrooms and toilets. Quiet, infinitely durable, easy to clean, and unaffected by water, alkalis or acids; Duraflex-A, laid in one continuous seamless sheet is firmly yet gently cushioning the tread of thousands of little school-going feet.

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This unit is for use in the class room, supply room, or engineer's quarters. It is especially convenient for storing small supplies and, being made of steel, it will give years of service with practically no maintenance cost.



Pressed Steel Bench Legs

These light, strong bench legs are just the thing for the manual training work-bench, or any table which requires a firm, reliable support.

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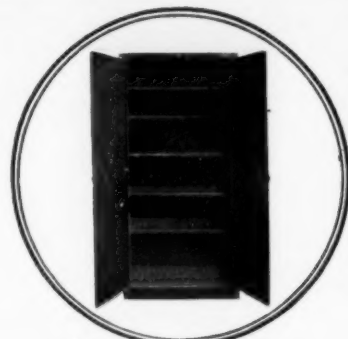
Lupton Display Shelving used in the library

Durable

Lupton all-steel equipment is made to withstand years of hard wear. It is rigid, strong, and proof against splintering, warping, or rotting. Simple in design, it harmonizes with practically any surrounding, and the baked-on velvet-green finish of enamel is always pleasing.

Convenient

Lupton all-steel equipment is convenient because it is easily erected or moved; it can be uniformly expanded to meet growing needs; and it requires practically no upkeep. It is also easy to clean, easy to use, and saves room because it provides 10% to 30% more useful space than similar wooden equipment.



Utility Cabinet

The all-steel Utility Cabinet meets the need for a strong, durable container which may be securely locked. It is adaptable to the storing of manual training tools, scientific instruments, clothes, or other valuables.

Lupton Display Shelving

Lupton steel Display Shelving represents an investment in good furniture. Not only does the steel retain its finish and strength where wooden articles encourage vermin and deteriorate rapidly, but it appeals to that sense of neatness and efficiency which is so desirable in schools, libraries and offices. It is admirably suited for storing supplies or for book shelving and is easily moved or expanded as occasion demands.

Write for
literature

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PHILADELPHIA

710

(Concluded from Page 82)

build and equip eight elementary school buildings, which would go a long way toward relieving the shortage. This statement is made in the belief that those who are delinquent in their taxes have not appreciated just what is meant by their delinquency."

—Holden, Mass., with a 3,000 population, recently voted \$56,000 for 1925 budget, \$4,500 for a grade school addition, and \$125,000 for a new senior high school. Brainerd & Leeds of Boston have been chosen architects.

—Owing to the fact that the school system of Joliet, Ill., is hard pressed for adequate funds, the local chamber of commerce has volunteered to make a study of the situation and to lend its influence toward a solution.

—"To cut or not to cut" school costs is the issue at Camden, N. J. The school board finds that it will require \$103,000 more for the balance of the year beginning with July 1. The authority to grant the additional funds lies with the board of school estimates. In commenting on the situation the Camden Courier asks: "Taking into consideration the great benefits to the citizenry that education brings, the added benefits of advanced education, the cost of administering the education, and the improvements constantly being applied to the establishments in which this education takes place, is a cent and a third increase for every thousand dollars of property value too oppressive for the public to bear?"

—The voters at Lima, O., will be asked next fall to approve a renewal of the present three-mill levy for schools. Under the levy, \$240,000 a year are assured to the schools.

—The school board of Fort Smith, Ark., has asked the state legislature to pass a special law providing for a one hundred per cent assessment of property in the district for school purposes.

—Increases in state aid to cities are proposed in a bill submitted in the state legislature of New York by Senator Cole. In this measure, cities of more than 1,000,000 population would receive an increase of \$50 per teacher year; first class cities of less than 1,000,000 population, an increase of \$100 per teacher; other

cities of greater than 50,000 population, \$125 per teacher, and cities of less than 50,000 an increase of \$150 per teacher year. This applies to the city of Oswego with about 120 teachers on the city pay rolls. The total increase in the State will be about \$10,000,000 the communication states.

—Stamford, Conn. A special committee has been appointed by the school board to have charge of the construction work in connection with a school building program. The sub-committee of the board, previously in charge of the preliminary work, will be charged with the operation and maintenance of the school plant.

—Although a number of schools in Ohio are in need of state aid under the relief bill now in the legislature, Warren schools are in fine financial condition. A three-mill tax approved last fall has provided adequate funds for some time to come. The relief bill permits the levying of additional taxes, not to exceed three mills, where petitions are signed by three-fourths of the qualified voters of the community.

—The Claymont, Del., special school district has brought its financial difficulties to the attention of State Superintendent Holloway. The school board is faced with an annual deficit of \$15,000. Dr. Holloway declared that the only possible way he saw out of it, was for them to either cut down the amount of money paid out for teachers' salaries, which are higher in their district than in those controlled directly by the state board, or to petition the present legislature to allow the state board the entire amount of the budget asked by it for the next two years, or to continue to pay the deficit either by their present system of referendum or other special tax. It is absolutely impossible under the present laws, for the state board of education to make any special concessions or privileges to any particular district, despite the fact that that district may pay the state far greater sums in school taxes than other districts receiving similar amounts.

BRINGING SCHOOL PUBLICITY UNDER CONTROL

In order to curb the tendency to elaborate ordinary school occurrences into sensational news matter, the Chicago board of education has

sought a revision of its rules governing advertisements and notices. The old rules provide that such publicity must be subject to approval by the superintendent of schools, but carries the exception: "Unless the same relates to the teachers' pension fund, or to any national or local organization of public school teachers."

Superintendent William McAndrew proposes that all exceptions be stricken. He holds that the state law provides that "the superintendent shall prescribe and control the discipline and conduct of the schools." It is held that to except from his supervision the circulation of any advertisements or notices would be to take from him the control of the educational department as required by the law. One of the duties of the superintendent is to preserve schools from interruptions, including the receipt and circularization of advertisements of all kinds. While it is to be presumed that advertisements appertaining to the teachers' pension fund or to any national, state, or local organization of public school teachers would be proper notices, yet such advertisements might be issued in such numbers or in such conflict with good school policy as to make it inadvisable to permit their circulation.

Superintendent McAndrew argues as follows: "Responsibility should be centered in one official, easily reached by the board of education. The authority for circulation should not be divided among many persons and organizations. Any two or three persons could, under this rule, organize themselves into a national or state or local teachers' organization and have the right to circulate objectionable matter. Many schools in America have been circularized by so-called teachers' organizations in favor of electing or defeating a designated candidate for political office, in favor of or against designated religious societies, in favor of or against designated dramatic or motion picture entertainment, in favor of or against platoon schools, junior high schools and other educational projects. The board should place in some responsible official the duty of deciding what should be circulated."

DURABILT

Steel Lockers



EDWARD E. LIBBEY HIGH SCHOOL, TOLEDO, OHIO

This magnificent structure, the pride of Toledo, completed at a cost of nearly two million dollars, contains everything best in modern high school appointments.

Several thousand Durabilt Steel Lockers recessed in the walls of the spacious corridors, finished in a beautiful shade of pearl gray—are a perfect match to the elegant marble wainscoting.

A policy of true economy guided the Toledo Board of Education in their deliberations and final selection of Durabilt Steel Lockers for this school. The board members were fully convinced that real locker economy must insure complete satisfaction and long service, both of which are natural results of Durabilt quality standards.

Hundreds of America's leading schools which are Durabilt equipped are a constant source of satisfaction and pride to the School Board, the faculty, the students, the tax payers and the community as a whole.

Steel lockers for use in corridors, class rooms, alcoves, and gymnasium locker rooms, made to our rigid standards possess the features of sturdiness and permanence, together with the essential merits of economy which have won a pronounced preference for Durabilt in the finest institutions.

The many advantages and outstanding features of Durabilt Steel Lockers are worthy of your most thorough consideration and we invite your investigation. Phone our nearest Sales Office or write us today for locker folder No. 5008.

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Main Floor Corridor—Edward E. Libbey High School.

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Service available to
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Service available to architects and school boards.

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We have assisted in the financing of schools in every part
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Economy in School Administration

Economy in school administration means the efficient investment of public monies in school buildings, equipment, maintenance, supplies and in educational direction that will return to the community sound American education over the greatest number of years.

Errors in school planning are perpetuated for many years in the form of inefficient school buildings. Equipment, although low in first cost, may mean high operating expenses and early replacements. Lack of foresight in the selection of building sites and in financing may mean high educational costs for years to come.

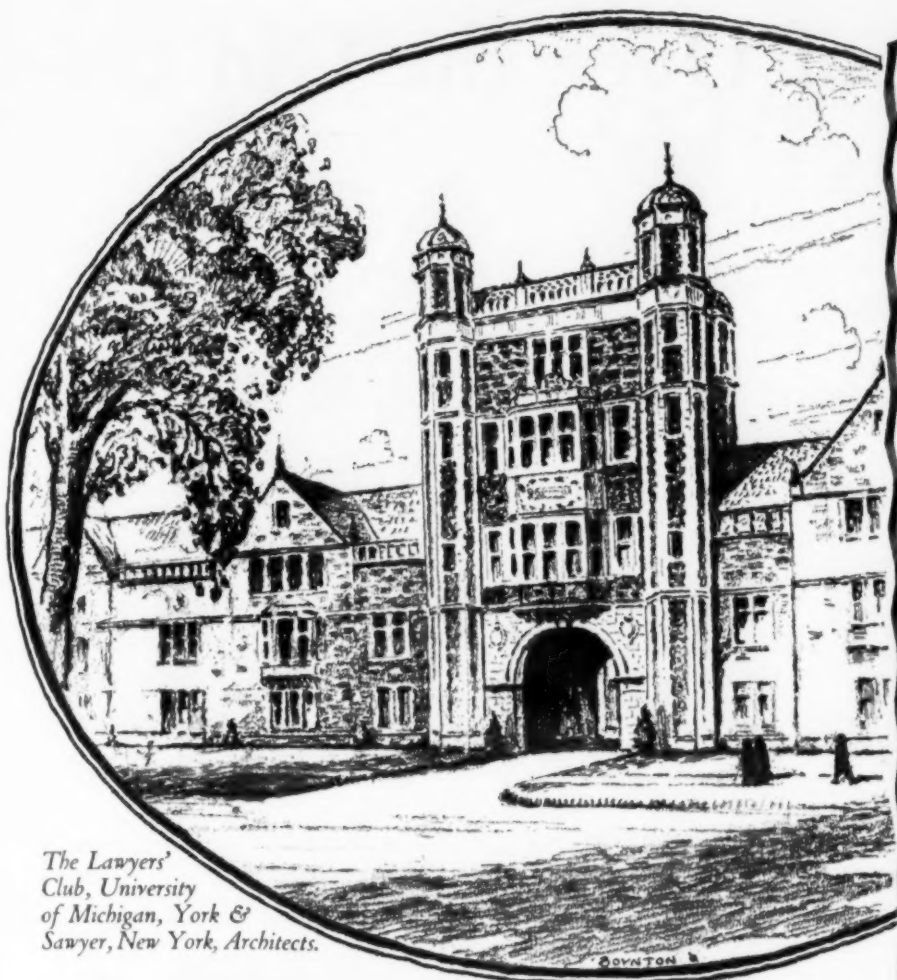
The employment of an expert on the part of school authorities is a most efficient means of securing economies and avoiding errors in school administration. The services of the specialist will effect economies, not only in successfully meeting the immediate educational needs, but in securing these economies over a period of years.

As an economy in school administration we commend the Professional Services of experts covering the following:

Heating and Ventilating
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Sanitary Engineering
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Educational Engineering
School Bond Issues
Accounting
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The PROFESSIONAL SCHOOL SERVICE DIRECTORY is published as a means of establishing a point of contact between the school authorities and professional men offering such services.



The Lawyers' Club, University of Michigan, York & Sawyer, New York, Architects.

MILCOR

MILCOR means Firesafeness

YEARS ago it was difficult, if not actually impossible, to make schools firesafe. And it was extremely expensive.

But not so today! Milcor Metal Lath, as a base for plastered walls and ceilings, solves the problem of interior firesafeness. And Milcor Metal Roofing eliminates the greatest external fire hazards.

Plastering on metal lath is not only firesafe, but crackproof. Never any chance of ceilings cracking and dropping off, endangering the lives of pupils and teachers, when Milcor Metal Lath forms the base.

Wall corners, too, can be made permanently crackproof with Milcor Expansion Corner Beads. Other Milcor Products—Expansion Metal Casings, for instance—by eliminating costly, impractical woodwork, permit big savings in first cost as well as lower maintenance cost.

You owe it to the children and to the tax-payers to investigate the Milcor Line. Every School Board member should get posted on the data embodied in "The Milcor Manual" and "The Milcor Guide". Copies of these interesting books gladly sent on request.

MILWAUKEE CORRUGATING COMPANY

MILWAUKEE WISCONSIN

Chicago, Ill., Kansas City, Mo., La Crosse, Wis.

SCHOOL BOARD NEWS

SCHOOL BOARD ELECTION DISCUSSIONS

—The qualifications of school board membership and the elements with which the school board must deal were recently discussed in a series of newspaper articles by Hattie T. Harl Council Bluffs, Iowa. Miss Harl, who was a candidate for reelection, frankly discussed the subject with her constituency. In speaking of school elections, she says:

"To the parent or the taxpayer, especially if he be both parent and taxpayer, no office for which he casts his vote is so important as the membership of the school board. No office comes so closely in touch with him and his affairs.

"Practically half of his total tax is expended by the school board. To it he confides a very important part of the training of his family. The policies by it adopted decide the future character and equipment of his children in a measure second only to the training and equipment provided at home. Compared to it the personnel of city or county officialdom are of no real importance to him. Yet the vote at county or city election is double that at school election.

"By the thoughtful, the importance of the school director is so far recognized, however, that it is easier to get a high class man or woman to run for office, unremunerated though it is, than to persuade such to become a candidate for any other. The average member of the board of education ranks high as a man and a citizen. But nothing short of the best is good enough for the responsibilities of the office, and, like every other good thing, it is obtainable only at the cost of eternal vigilance: The sum of the

best judgment, the informed judgment, of all our people.

The Board Member

"What, then, are the qualifications of an ideal school director? Simply that he or she shall be honest, intelligent and fair. Greater almost than any issue, greater than any question of loyalty, are these three elements of personal character. To work harmoniously and efficiently together it is not necessary that board members see all things alike. Indeed, it is better that they do not; for only out of discussion and presentment of every point of view can right conclusions emerge. But it is necessary to the highest efficiency and most perfect harmony that the members of the board have confidence in each other's judgment, motives and fair dealing.

"Will the voter give himself that kind of a board?

Elements with Which the Board Must Deal

"It is important that both the school administration and the school patrons have a clear idea of the duties to be performed and the elements to be served by the board of education. The duties are myriad and may be sketched only on broad lines in these articles. The elements to be served are five: The state, the child, the parent, the teacher and the taxpayer. To each of these the ideal board will dispense that exact and even-handed justice which permits to each of them the full exercise of every right without trespass from any of the other elements, and awards to none of them any privilege which trespasses upon the right of any other. To balance these right to a nicety is sometimes a duty to tax the powers of any board; to do it to the satisfaction of all concerned will often prove an impossibility."

AMONG BOARDS OF EDUCATION

—The school board of Wise County, Virginia, in cooperation with Supt. J. J. Kelly, has adopted plans for underwriting its own insurance on 70 school buildings, in the sum of \$3,000 on each structure. A fund has been created and is held to apply on any loss which may occur through the destruction of a building.

—Kenosha, Wisconsin, with a population of 35,000, has a board of education with eighteen members elected by wards. The board has

recently made inquiries both as to the size of school boards and the matter of district representation. The average size of the school board in 177 cities ranging between 30,000 and 100,000 is 7.4. It also develops that in 109 out of 130 cities the members of boards of education are elected at large and not by wards. In only 13 cities, or 7.6 per cent, are members elected by wards. A committee appointed by President Lewis Powell, consisting of Elmer E. Swartz, James W. Blair, and George H. Cook will initiate steps to reduce the board to seven members to be elected at large.

—The Chicago school board has passed a resolution aimed at pull, influence, and outside political activity affecting appointments and promotions of persons in the school system in any of its departments. Superintendent McAndrew's annual report showed in his department alone last year 562 requests for promotion of teachers made by persons without any knowledge of the candidate's teaching experience. The rule just passed, offered by Miss Grace Temple, vice-president, covers not only the educational department but the business and law department as well. It reads: "Whenever the superintendent of schools, the business manager, the attorney, or any other person supervised by the board of education shall recommend the appointment, promotion or transfer of any employee, he shall file with the board of education his reasons, for such recommendation, and all communications pertaining to the same received by him or by any person who is under his supervision. He shall also furnish in writing to said board the names of all persons who have in any wise interested themselves in said recommendation by oral communication to the person making such recommendation, or to any one supervised by the person making such recommendation."

—The Association of School Board Secretaries of Pennsylvania has elected the following officers: President, J. Milton, Upper Darby Township, Delaware County; vice-president, Miss Anna M. Tanner, Erie; secretary, D. D. Hammelbaugh, Harrisburg; treasurer, George Reynolds, Wyoming.

—The members of the board of education of Washington, D. C., were asked to "stop fighting

Spread a New Roof Over the Old One

Perhaps the winter has left the roofs of your buildings in bad shape. It is much better to fix them now, than to wait until they begin to leak.

It isn't necessary to remove the old roof covering. This is an expensive and a dirty job. Instead you can have them coated with Tropical Roofkoter, which is a semi-liquid compound that is spread right over the old roof with a long-handled roofing brush.

Tropical Roofkoter

Tropical Roofkoter is inexpensive to use, as skilled labor is not required for its application. It forms a tough, elastic sheet over the entire roof. Moisture cannot get through at any point. The roof is made absolutely waterproof and remains so for years.

Send for an illustrated booklet showing buildings in all parts of the country, the roofs of which are waterproofed with Tropical Roofkoter. We sell direct to Public and Private Schools.

THE TROPICAL PAINT & OIL CO.,
1228-1270 W. 70th St., Cleveland, Ohio.



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Please send illustrated booklet and prices on Roofkoter. Also interested in items checked.

- ☐ Cementkote—For concrete, brick and stucco
- ☐ Toconamel—A tough, durable enamel in colors for walls and ceilings
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- ☐ Waxolene—A floor dressing with disinfecting properties

Name

Title

City

State

4-25

or resign" by a local parent-teachers' association.

—The Pittsburgh, Pa., board of education passed a resolution whereby it is forbidden to park automobiles on school grounds. The resolution was introduced by Dr. A. L. Lewin, who sounded the slogan "School yards are for children to play in, not for teachers to park their automobiles in." James Bonar, superintendent of buildings, was directed to place into effect immediately the board's edict.

—Edward M. Sullivan of the Boston, Mass., school committee recently moved that all meetings and conferences be open to the public. He was supported by another member, William G. O'Hare, but the motion was lost. Members Dr. Frederick F. Bogan, Miss Francis G. Curtis, and Dr. David D. Scannell opposed the measure.

—President Charles M. Moderwell of the Chicago board of education, was honored with a testimonial luncheon by the Principals' Club. In his acknowledgement to the hosts he declared that although the task of the board had been hard at times it looked as if the tumult and shouting had died down and that peace was near. He spoke on reminiscences and told of how the first meeting under his régime had been under police protection. "Those were discouraging days," he said, "but no group played a more important rôle in establishing calm than you school principals. I consider this group the keystone in the arch of public school system, and if the schools fail to function properly it is your fault, and if they progress it is to your credit."

—Chicago, Ill. The school board is seeking as attorney, an expert in tax matters, who will become a permanent member of the school legal staff. This expert will specialize in discovering flagrant cases of tax dodging or low valuations and will file complaints before the board of assessors. He will also appear before the board in reviewing proposed reductions in valuations. The new official, it is believed, will increase the revenues of the school board for both educational and building funds.

—Supt. W. E. Miller of Knoxville, Tenn., has declined reelection for the next school year and the board is seeking candidates to fill the vacancy which will exist at the close of the year.

—The Oakland Independent Junk Dealers'

Union of Detroit, Mich., has presented a petition to the school board, protesting against waste paper drives on the part of the schools. Objection is made to the drives, first because they take the revenue out of the junk dealers' hands; second, because they take time that should be given to school work, and third, because they become sources of danger to the health of school children. The schools have been able to purchase pianos, musical instruments and other devices with the proceeds of the paper drives and they do not care to relinquish this revenue.

—The board of school directors of the independent district of Manley has been upheld, in a decision given by an Iowa court refusing an injunction to restrain the board from enforcing a vaccination rule. The court held that school boards are given wide powers in guarding the health of students, and that the board was justified in keeping unvaccinated children out of school in the face of an epidemic.

—The Reed-Sterling bill providing for federal control of education through a department of education was denounced recently at the meeting of the Minnesota School Board Association. A resolution adopted at the meeting read: "It is not without some anxiety, and even alarm, that we view the present ascending tendency to centralize at the seat of government, activities that belong in the hands of the people of the individual states. It is for this reason that we express our opposition to the so-called Reed-Sterling bill now before congress, as an effort to concentrate in Washington authority that belongs to the states."

—Requests for salary increases on the part of eight groups of employees have been denied by the Philadelphia board of education. The refusal was made because of the greatly increased expenditure which would result from such wholesale increases in salary.

—Attorney General Griffith of Kansas, in a recent opinion, has ruled that the present school board of Wichita must resign before the next regular election, either standing for reelection or permitting other candidates to run in their places. Under a special act of the state legislature, Wichita was permitted to have a twelve member board for several years. At the present time the city has passed the population limit

of 85,000 under the law and the city now falls in the same class as Kansas City, with six members as the definite size of the board.

—Saginaw, Mich. The west side school board has approved a plan providing for the purchase of school supplies at one time of the year, and in one lot. Under the new plan, supplies will be contracted for in April, delivered in July, billed in August and paid in August. Each school will start the year with a full quota of supplies and extras may be obtained only in emergency cases.

—West Warwick, R. I. The school board has refused an offer of the local board of trade providing a prize for the best essay written by a member of the high school graduating class. The board gave as a reason for its refusal the fact that the offer was not in accord with rules adopted at a recent meeting of the school superintendents' association.

—A bill introduced in the house of representatives of the Connecticut legislature proposes that the state board of education shall be given power to select school sites and to aid and supervise the erection of school buildings. The bill is opposed by several state officials, including members of the state board who are against the measure.

—Boston, Mass. By a vote of three to two, the school board has decided in favor of "star chamber" sessions. The board rejected a proposal to throw meetings, with some exceptions, open to the public.

—Special counsel has been employed by the county board of Summit County, Ohio, to contest a suit by E. G. Pratt, a taxpayer seeking to prevent the county auditor, treasurer and school officials from distributing school tax money collected in Boston Heights village. In the suit, it was charged by Pratt that the county board had acted unlawfully in transferring portions of the village school district to adjoining districts, thereby reducing the available school money.

—Dayton, O. School officials aided by the city safety division have completed plans for an intensive safety campaign for the protection of school children. School janitors and police officers in the various sections will cooperate in protecting children from traffic dangers.

(Concluded on Page 90.)

ACCEPTED Everywhere —in Boston for example

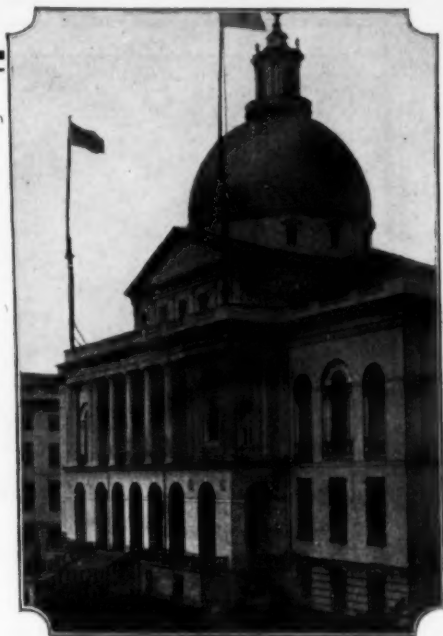
HERE is one of the most important centers of education in the United States. Its schools and colleges take rank with the best to be found in any land.

Not only are its scholastic standards high but its school buildings include some of the finest structures ever built for educational purposes. Thirty of these fine schools in Boston and vicinity depend upon International Electric Time Systems to regulate all of their work, to keep their daily programs smooth-running and to give them the utmost in time dependability at low cost.

International experience in Boston is typical of International acceptance in every other educational center.

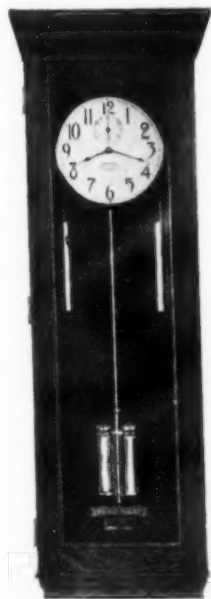
An International Electric Time System is adaptable to the simplest as well as the most extensive need. Below are some of the handsome and dependable devices in common use in schools everywhere.

We will gladly explain the function of this and any other equipment and give complete working specifications for any particular building or arrangement of plan and schedule to school officials, architects and builders interested.

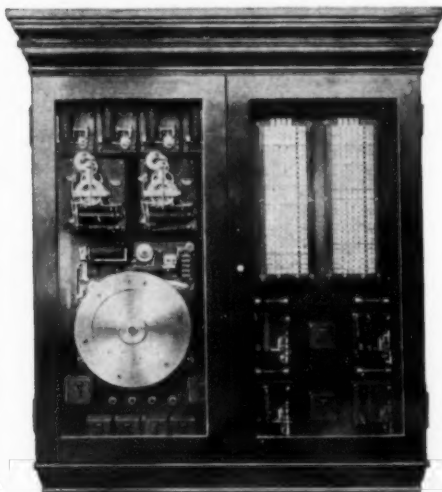


*Some Schools Using
International Equipment
in the Boston Territory*

Bowdoin School
Dudley School
Frothingham School
Harvard School
Norcross School
Prescott & Mc Donald School
Dwight School
Agassiz School
Sherwin School
East Boston Jr. High School
Dailaway School
Everett School
Gaston School
Frederick W. Lincoln School
Hugh O'Brien School
Prince School
Theodore Lyman School
Gilbert Stuart School
Shurtleff School
Breed Jr. High School,
Lynn, Mass.
Central Jr. High. School,
Lynn, Mass.
John Rollins School,
Lawrence, Mass.
Parochial School,
Newton, Mass.
Weymouth High School,
E. Weymouth, Mass.
Western Jr. High School,
Lynn, Mass.
William Carter School,
Needham Heights, Mass.
Winthrop Jr. High School,
Winthrop, Mass. (on order)
Russell School,
Cambridge, Mass.
Houghton School,
Cambridge, Mass.
Tucker School, Milton, Mass.



Universal Program and Clock Distribution Cabinet. Highest grade electrically-driven program and clock control apparatus obtainable.



Three types of handsome and dependable International Secondary Clocks — at right, Round Wood Secondary Clock; center, Round Metal Secondary Clock; below, Square Wood Secondary Clock.



**When in Atlantic City
Visit Our Showrooms
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Boardwalk**

International Type "D" Master Clock. Motor wound; weight driven; 60 beat. Mercurial compensating or brass bob pendulum.

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Gentlemen:
Please give us further information regarding your electric equipment for regulating school programs.



Conservatory of Music, Northfield, Minn.
Sound-proofed with Cabot's Quilt.
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Sound Proof Music Rooms

All school-rooms need sound-proof floors and partitions, but music rooms most of all. The above building was sound-proofed with

CABOT'S QUILT

and the directors report the usual "perfect results."

Sound-proof, Decay-proof, Vermin-proof and Fire-resistant—the only material that meets all requirements.

Samples and full details on request.

Samuel Cabot, Inc., Mfg. Chemists, Boston, Mass.
342 Madison Ave., N. Y., 24 W. Kinzie St., Chicago.



East Intermediate School,
Jackson, Mich.

Architect:—Claire Allen,
Jackson, Mich.

BLACKBOARDS OF NATURAL SLATE

You'll find Natural Slate Blackboards in the best schools, north and south, from the Atlantic to the Pacific.

What better advertisements are there than the words "Permanent," "Durable," "Most Economical,"—coming from the mouths of these exceedingly satisfied users?

Write for the interesting bulletin,—
"Natural Slate for Blackboards."

Natural Slate Blackboard Co.
108 ROBINSON AVE. PEN ARGYL, PA.

Titusville High School,
Titusville, Pa.

Architect:—W. G. Eckles,
New Castle, Pa.



(Concluded from Page 88.)

—Sacramento, Calif. A controversy has arisen over the disposal of the site of the old Bret Harte school building, part of which was donated to the board many years ago. At the time of the gift to the city, it is claimed, a provision was made that the land should revert to the heirs of the donor should the city relinquish the site for school purposes.

—San Francisco, Calif. Increased salaries for textbook clerks of the board of education have been approved. The increases conform to civil service rules and range from \$15 to \$25.

—A school board has a right to pay the medical expenses of a girl high school student, if the two codes applying to "pauper and indigent" students can be applied, in an opinion handed down by Deputy County Attorney C. J. Kelly of Silver Bow County, Montana. The opinion was given to the school board of Butte, which had voted to pay the bill of a girl student injured on her way to visit a state institution.

—Authority of the school board to exact a tuition fee or bar students from outside district from attendance in Great Falls, Mont., has been denied in an opinion given by County Attorney Eickemeyer of Cascade County. The opinion was based on an enabling act, creating the state of Montana and granting large tracts of land for educational purposes. Mr. Eickemeyer cited an opinion of a former attorney general, in which he declared that, while sections of the code give boards the right to fix tuition rates for non-resident pupils, this has no bearing upon the right of pupils to attend.

—Members of the Omaha, Neb., school board have opposed a proposed bill in the legislature, giving a salary of \$1,000 a year to each member. The board members expressed themselves as strongly opposed to the idea of pay for the service performed.

—Rev. A. R. Bosworth of Velva, N. D., has succeeded to the principalship of the Sawyer schools, a position recently vacated by Miss Minnie Elliott, following a strike of the pupils.

—Buffalo, N. Y. The school board has appointed Arthur H. Hoddick supervisor of construction, Ernest Crimi supervisor of architecture, and George Padington supervisor of plumbing and heating.

—The school board of Kearny, N. J., has opposed a bill before the legislature, placing school

janitors and their assistants under the provisions of the tenure-of-office law.

—New Bedford, Mass. The old controversy over closing the schools for teachers' conventions was revived recently, with the result that the school board voted not to suspend school sessions. The board members held that since the school year is reduced by so many vacations and holidays, the teachers should hold their conventions on Saturdays and they should be willing to give up one day to such a cause.

—House bill No. 128, introduced recently in the Idaho legislature, has been killed. The bill provided for a change in the method of naming members of the board of education and for a new division of the state.

—The establishment of a state board of education has been proposed in a recent report of the Illinois Educational Commission. In the report of the Commission, it was brought out that the present administrative system is extremely complex. High schools are governed by eight different codes with fourteen amendments, and the school laws in general have grown by a process of accretion. In fact, the Commission found enough material to show the need of sweeping reforms in the administrative system of the state.

—The committee on education of the Missouri house of representatives has presented a substitute for the community bill proposed by Governor Baker and State Supt. Charles Lee. The new measure provides for a county board of six members, to be elected by a county board convention. The convention would be given authority to divide the county into community school districts, with a minimum assessed valuation of \$1,500,000, or a minimum of fifty square miles. Supt. Lee opposes the idea of a county board to do the work and holds that such an arrangement would not make for a real contribution to public education in the state.

—A state board of education to have the same power over the state schools as the present board, and in addition to have control of the graded and high schools of the state is proposed by Lorraine Wooster of Kansas, former state superintendent. The new board would consist of the state superintendent of public instruction and eight members, one to be elected from each congressional district.

—Supt. F. H. Beede, of New Haven, Conn., in his annual report, points out that independent boards of education having the power to determine their own annual expenditures, as the New Haven board does, are more economical. Mr. Beede, however, points out that for the sake of public policy there should be a statutory limit to the amount to be spent annually.

The report also contains a table of expenditures of independent and dependent boards of education. The table shows the school debt in cities where independent boards function to be \$96 per pupil compared with \$138 per pupil in cities where dependent boards exist.

The total school expenditure is \$90.21 per pupil for independent cities and \$98.88 per pupil in dependent cities. Teachers employed in cities where boards are independent of city government receive an average of \$42.19 per pupil, as compared with \$57.47 in cities where the school budget is made up by city officials.

—Rock Island, Ill. The school board has received complaints from beauty shop proprietors against the practice of school teachers doing hair-bobbing, marcelling and other work of a like nature after school hours, and at prices much below the regular charge.

—Dr. Isaac D. Rawlings, state health director of Illinois, in a recent statement, pointed out that absence from school is largely a medical rather than a disciplinary problem. He holds that the community profits most if it depends more upon a doctor and a nurse instead of a policeman to keep its children in school.

—The Central Falls, R. I., school committee has elected the following officers: Chairman, James J. Doyle; Clerk, James F. Varley. Anthony J. Champagne is the new member on the board.

—The school committee of Central Falls, R. I., has decided its "open letter" policy in dealing with the city council has been inefficient. Hereafter the two bodies will enter into personal conferences.

—Birmingham, Mich. The school board has taken steps toward the creation of the office of business manager. The new official is to have charge of the purchase of supplies and the supervision of new building work. He will be directly responsible to the board.

Eliminating the Cost of REPAIRS and REPLACEMENTS

Is frequent cost for renewals and repairs a burdensome item of your school budget?

The use of enduring materials in construction work will banish much of that troublesome cost.

No repairs or replacements ever are necessary where COPPER is used for roofing, downspouts and gutters.

BRASS PIPE plumbing is trouble-proof and expense-free because it does not rust. BRASS or BRONZE hardware and lighting fixtures through lasting wear keep upkeep down.

COPPER, BRASS and BRONZE installations are cheaper because you pay for them only ONCE.

Consult our Building Service Department. No charge.

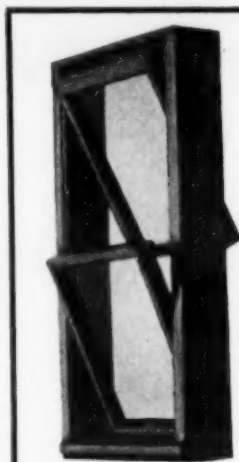
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This High School at Croton-on-Hudson, N.Y., has COPPER roof flashings, downspouts and gutters, BRASS PIPE plumbing, BRASS and BRONZE hardware and lighting fixtures. HARVEY STEVENSON, Architect.



To Use More is to Appreciate Most

During the remaining weeks of the school year many class room windows will be opened almost daily. The admission of outside air, however, should be made with the least possible danger of drafts.



THE WILLIAMS PLANK FRAME REVERSIBLE WINDOW EQUIPMENT PROVIDES:

*Ideal overhead ventilation
Reversibility for inside cleaning
Greater light area
More weathertight construction
Better shading facilities
Simplified frame construction
Weightless windows*

When the ordinary double hung window is raised the air enters the room at the level of the children's heads and this is dangerous. The Williams Plank Frame Window can only be tilted and this forces the air to enter above the heads of the children, giving ideal overhead ventilation.

The Custodian uses Spring Vacation as an opportunity to clean the building and inspect the equipment following the rigors of the Winter. In those buildings having the Williams Plank Frame Equipment the cleaning and glazing is done from within and there is the added satisfaction of knowing that there are no weights to stick or drop off or cords to break.

The Williams Pivot Sash Company

E. 37th St. at Perkins Ave., Cleveland, O.

SCHOOL SITES AND BUILDING CONTRACTS

The rights and liabilities of public school boards in the matter of capital outlay contracts have been subjected to an exhaustive study by Frank E. Henzlik, Ph.D., and published by Teachers College, of Columbia University.

After defining the meaning of "Capital Outlay," the author discusses the powers of school authorities to select and acquire sites for school purposes. Here he makes plain the right of eminent domain. He summarizes the powers here exercised as follows:

"The public school system pervades the whole state, acting in the several school districts by its boards of directors in carrying out the wise educational policies of the state. Certain powers, rights, responsibilities, and duties are delegated to the respective boards in the selection of public school sites. They have broad, comprehensive, and discretionary powers in the selection of school sites. The right of eminent domain is delegated to these school authorities and it is in their power to decide on the expediency and necessity in the exercise of the right of eminent domain in a particular case.

"There are, however, general and specific limitations imposed upon boards in the exercise of the right of eminent domain when the property is already appropriated to public use or by way of special exemptions granted by the legislature in the form of special statutes. Lastly, the property taken for school purposes cannot be used for purposes inconsistent with its use as a school. As to the many quasi public uses for which school property may be used, there is conflict of authority, some jurisdictions permitting a broad scope of activity, while others stick strictly to the use for school purposes."

The question, too, of how far one school board can bind successive school boards is dealt with. The following decision of the United States supreme court is quoted as follows:

"The district school board is a corporation representing the district. It is a continuous body. While the personnel of its membership changes, the corporation continues unchanged. It has the power to contract. Its contracts are

contracts of the board, and not of its individual members. A contract by a school board, the duration of which extends beyond the term of service of its members, is not, therefore, invalid for that reason."

Question of Personal Liability

During recent years some embarrassing situations have arisen in which members of boards of education have been held individually responsible for liability believed to be borne by the school district. It is here assumed that where the school director fails to legally bind the district, he binds himself. The author makes this clear by saying:

"There is a clear distinction between the cases of directors contracting within the scope of their authority and where the contracts are wholly outside the scope of their general powers. The true principle would seem to be that where a director acts within the line of his duty, the contract, though signed in his individual name, is in most states not binding on him as a personal obligation. But, this fiduciary relationship to the district will not protect him in anything done wholly outside of his general scope of authority, nor if he makes false and fraudulent representations."

THE NEW JERSEY SCHOOL BUILDING COST SURVEY

A careful study made by the New Jersey department of instruction demonstrates the cost of recent school building construction on the basis of per classroom, per square foot, and per pupil. While the figures vary in different sections, owing to local conditions and the tax ability that they possess, the whole presents a most comprehensive view of the situation.

It has been established through the survey that the median cost of high school buildings created during the last four years has been approximately \$529 per pupil. The elementary schools of the larger size have been erected at a median cost of \$335 per pupil. Smaller schools, mostly in rural communities, have cost about \$264 per pupil.

In discussing these figures, the report issued by the department says: "In connection with the maximum pupil capacity of high and junior high schools it must be remembered that with

the modern educational program in use today in this type of school, which makes use of the auditorium, gymnasium, shops and study halls throughout the school day, a building has a larger capacity than when the legal capacity on the basis of 18 square feet of classroom floor surface per pupil is used. Under the modern educational program each pupil does not have a desk in a classroom assigned to him, but has a home station which may be in an auditorium, domestic science room or some other center than a classroom.

"The square footage of the building asked for includes all the area of the building usable for school purposes, but excludes corridors, stairways and special service rooms, such as boiler rooms or janitor's quarters. The figures indicate that the median cost per square foot of high and junior high schools was \$12.44; of the larger elementary schools, \$11.97; and of the smaller elementary schools, \$7.99.

"As was to be expected high schools, and in fact all larger buildings, cost more per pupil and per square foot than the smaller schools. There are several valid reasons for this. Fireproof construction costs more than non-fireproof. The larger buildings are generally constructed in a more durable fashion than the smaller rural or semi-rural buildings. The exterior is generally of a more expensive type and is generally of brick and stone. Many of the smaller buildings are found of frame or partially frame construction. Buildings not having inside plumbing naturally show a lower per pupil or per square foot cost."

Mr. Ittner Accorded Recognition

—Mr. Guy Study, in the February issue of the *Architectural Record*, has described the architectural significance of the St. Louis school buildings designed by William B. Ittner. In his article, Mr. Study refers to Mr. Ittner as a pioneer in the development of efficiency and beauty in school buildings, and by way of illustration, reproduces as many as twenty typical St. Louis schools. He emphasizes the fact that the modern school building is a "splendid civic monument" and an important factor in the development of the community, as well as an educational agency.



The interior of the Central High School, Memphis, is Hockadayed

The supreme test of quality is performance. On the walls of the important buildings listed below, a few out of many, Hockaday has written a record which will pass the closest scrutiny of the paint critic. Read this record and be convinced of Hockaday's superiority for interior walls.

St. Martin's College, Lacey, Wash.
Supt., Bernard Neary

Riverview School, Tulsa, Okla.
Architect, Leland I. Shumway, Tulsa

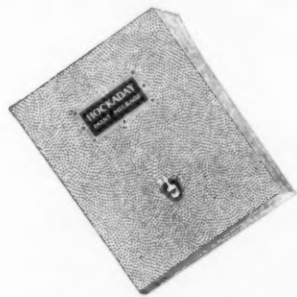
Ross Avenue Public School, St. Bernard, O.
Supt., F. M. Reynolds

Central High School, Memphis, Tenn.
Architect, B. C. Alsop, Memphis

Elmwood Place Public School,
Cincinnati, O.
Supt., W. S. Evershull

William Winlock Miller High School,
Olympia, Wash.
Supt., Elmer L. Breckner

High School, Rutherford, N. J.
Architects, Rasmussen & Wayland,
New York City

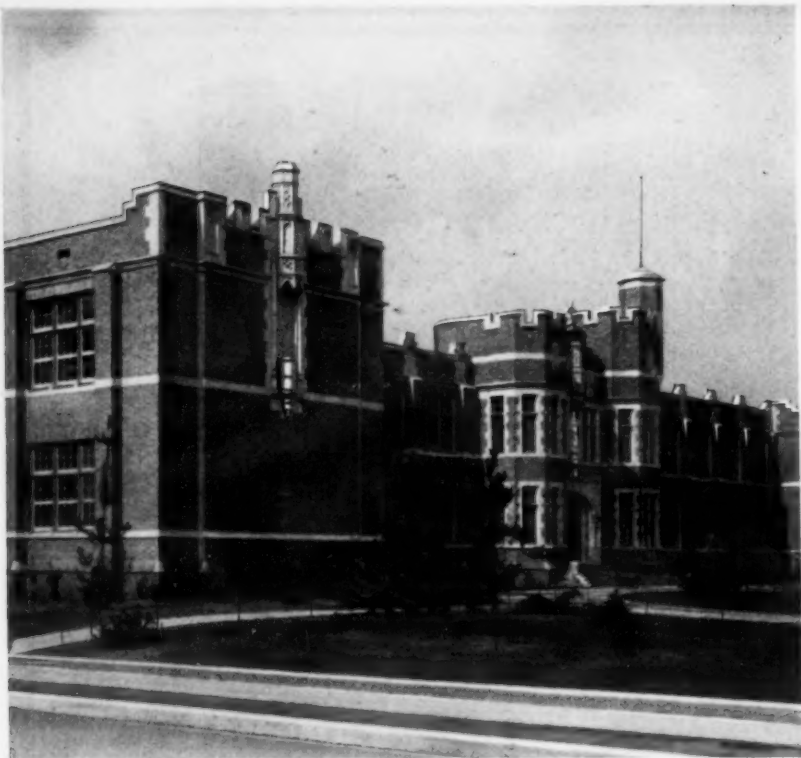


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PAINT MILEAGE. Shows you these buildings,
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HOCKADAY

THE WASHABLE PAINT FOR ALL INTERIORS

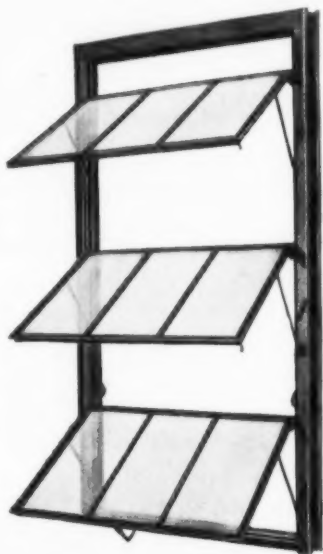


*The Conaty Memorial School, Los Angeles, California.
Truscon Donovan Awning Type Windows.*

Windows Designed to Protect Youth

Youth spends so much of its time in the school that it is as important to protect the child in school as in the home. Proper admission of daylight and fresh air are necessary to the growing child. This protection of the eyes and general health is merely safeguarding the nation's future.

Natural ventilation and daylighting are secured in abundance with Truscon Donovan Awning Type windows. Constructed carefully from copper-bearing steel they are rust-resisting, fire-proof, weathertight and durable. They blend with any architectural treatment. Shades for individual sashes allow awning effect of any angle for proper diffusion of light. Sashes may be operated singly or actuated simultaneously with the lower one. Slight pressure operates all sashes.



The awning characteristic of the Truscon Donovan Window fits it particularly for use in schools and hospitals.

Write for Truscon Donovan Window Catalog.

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AWNING TYPE WINDOWS

A Great Nation - Wide Fencing Service

Cyclone Nation-wide Fencing Service offers:

Service—of Cyclone engineers to study your fencing requirements, make recommendations and submit estimates of cost. No obligation—

Service—of one of the 100 expert erection crews which are constantly at work installing Cyclone Fence. Or—

Service—of an erection superintendent to direct workers in installing Cyclone Fence.

Cyclone Service is available everywhere and to everyone. Covers every phase of playground fencing. Provides for the prompt and correct installation of Cyclone Chain Link or Wrought Iron Fence.

Phone, wire or write nearest offices.

CYCLONE FENCE COMPANY

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Newark, N. J.

Cleveland, Ohio
Fort Worth, Tex.

Western Distributors:

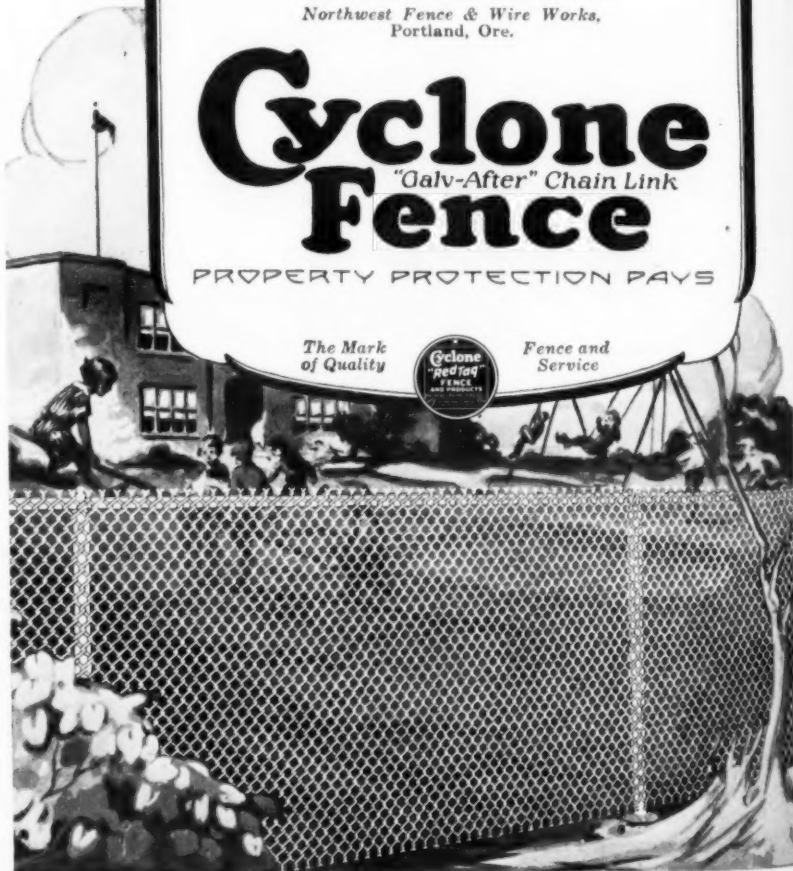
Standard Fence Co., Oakland, Calif.

Northwest Fence & Wire Works,
Portland, Ore.

Cyclone Fence

"Galv-After" Chain Link

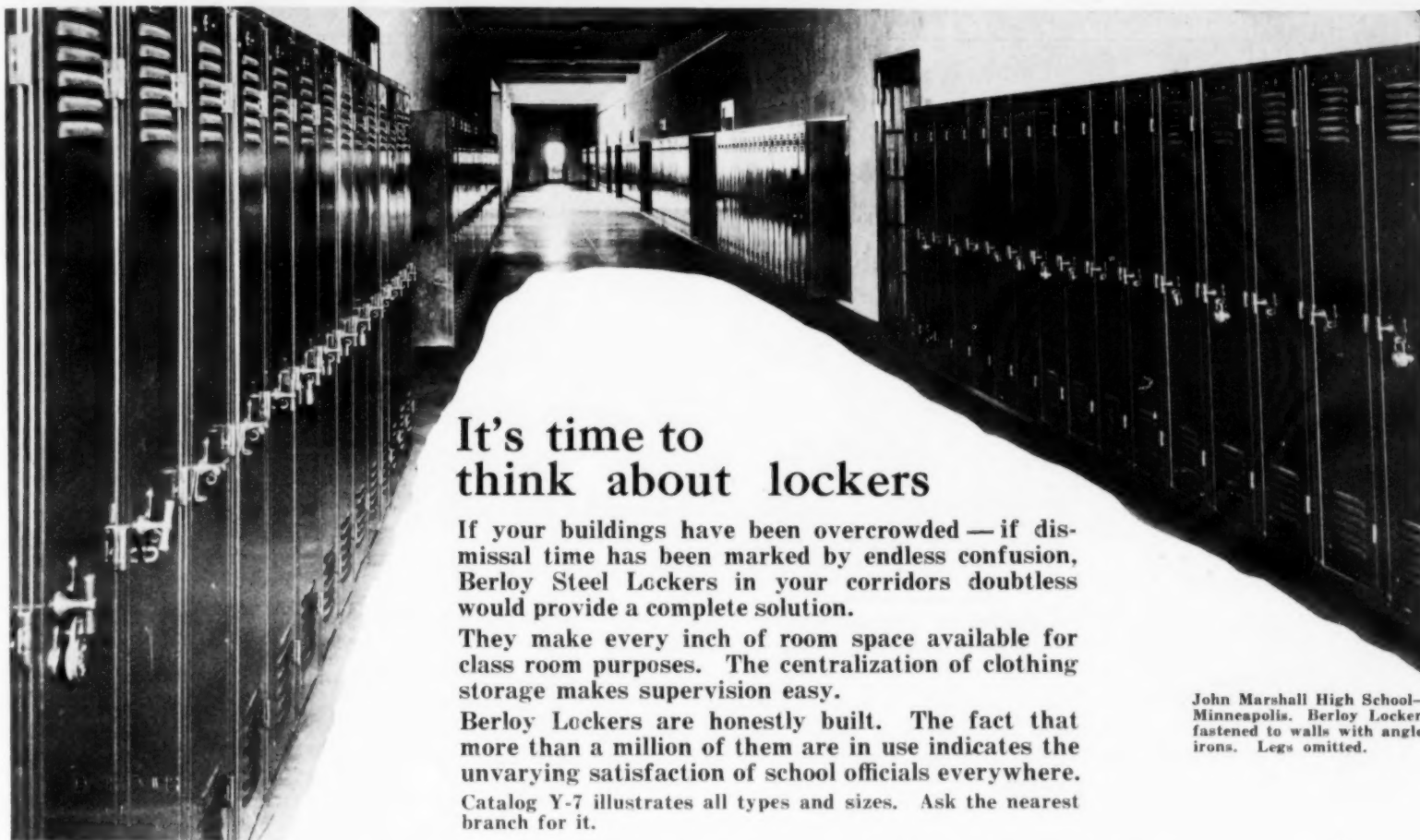
PROPERTY PROTECTION PAYS



The Mark of Quality



Fence and Service



It's time to think about lockers

If your buildings have been overcrowded — if dismissal time has been marked by endless confusion, Berloy Steel Lockers in your corridors doubtless would provide a complete solution.

They make every inch of room space available for class room purposes. The centralization of clothing storage makes supervision easy.

Berloy Lockers are honestly built. The fact that more than a million of them are in use indicates the unvarying satisfaction of school officials everywhere.

Catalog Y-7 illustrates all types and sizes. Ask the nearest branch for it.

John Marshall High School—
Minneapolis. Berloy Lockers
fastened to walls with angle-
irons. Legs omitted.



THE BERGER MANUFACTURING COMPANY, CANTON, OHIO.
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BERLOY STEEL LOCKERS

SCHOOL BUILDING NEWS

SCHOOL PROPERTY VALUES IN NORTH CAROLINA

—The State Department of Public Instruction of North Carolina has compiled a table of schoolhouses and school property, which shows that the number of schoolhouses in the state has steadily increased from 7,382 in 1900 to 8,239 in 1918-1919, when the peak was reached. The number of city schoolhouses has increased every year, with one exception, during the period covered in the table.

A study of the school property of the state shows that the value has increased from less than two million dollars in 1900-1901 to nearly sixty million dollars in 1923-1924, an average increase of about two million and a half each year. During the year 1919-1920 the value of all school property made a decided advance from sixteen million dollars to 24 million dollars. Since that time the value has increased by four, seven, thirteen and eleven million dollars in successive years. This is another evidence that consolidation, in providing larger and better types of rural school buildings, has made progress.

An interesting phase of the table, showing the value of school property, is the approximately equal value of rural and city school property for both races. During the last few years the value of city colored school property exceeded the value of rural, and last year (1923-1924) the value of city white school property exceeded the rural. Comparing the average value of property per rural schoolhouse with the average value of city property per schoolhouse, it is seen that while the average value of rural schoolhouses is in the hundreds of dollars up to 1914-1915, the value of city schoolhouses was never less than \$12,000 during this period. Beginning with an average value of

\$174 in 1900-1901, the average white rural schoolhouse just reached \$5,726 in 1923-1924. The value of the average city schoolhouse, on the other hand, starts with \$12,125 in 1900-1901, and reached a maximum of \$78,704 last year.

The total number of schoolhouses in the state during the year 1923-1924 was 7,360, of which 4,928 were white and 2,432 were colored. The total value of white school property was \$53,177,235. Of this total, 50.6 per cent was invested in 342 city schoolhouses and 49.4 per cent was invested in 4,586 rural schoolhouses. The average value of each of the 342 white city schools was \$78,704, while the average value of each of the white rural schools was only \$5,726. The 24 largest city school systems had the most valuable schoolhouses during the period, with an average value of \$105,583 per building. The same schools had a per capita investment, based on enrollment, of \$277.77, while the white rural schools, on the other hand, had only \$63.92 per capita investment.

Of the 24 largest city school systems, seven have over a million dollars invested in school property, and one (Winston-Salem) has over a million and a half. The highest average value per child enrolled is in Gastonia with \$370.92, while the lowest is in Kingston with only \$91.15 per capita.

Among the fifteen smallest charter schools, Southern Pines ranks first with the greatest amount of property and the highest per capita investment, \$406.36 for each child enrolled. Pilot Mountain has the lowest value of property and the lowest per capita investment in property, \$17.91.

—The Building Owners' and Managers' Association of Omaha, Neb., has offered assistance to the school board in the planning of the new school buildings to be erected with the proceeds of the two-million-dollar bond issue approved by the voters last November. It is believed the suggestions of the organization's committee will result in a lower cost of construction and a lower operating cost.

—Supt. M. G. Clark of Sioux City, Ia., in a report to the board of education, reports the findings of a survey of the school plant. Mr. Clark gave a list of the new buildings in process of erection, and those nearing completion, and

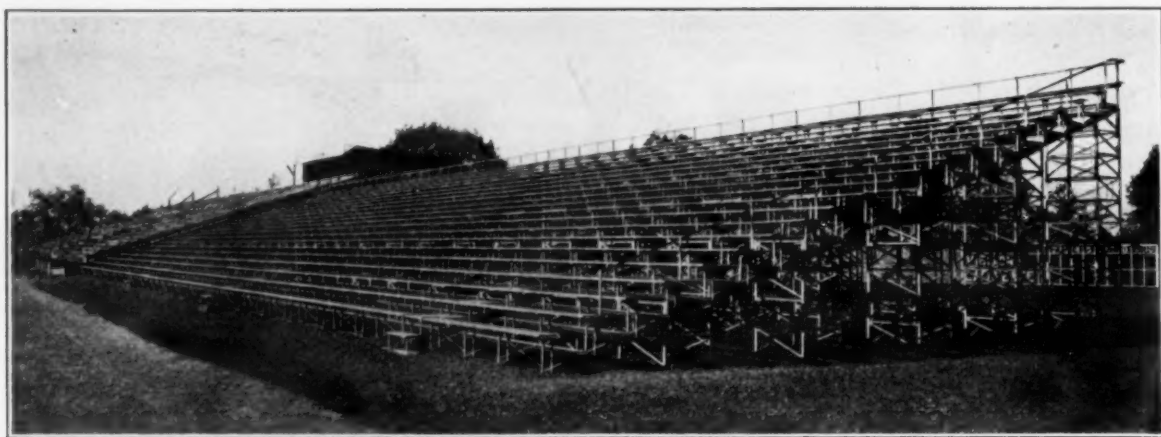
discussed the possibility of handling an increased enrollment without increasing the number of rooms in buildings under construction, or those at present in use. He pointed out that in the light of experience, it can be predicted that an increase of 600 students may be expected at each of the coming September openings. This fact, together with the points of congestion and present capacity limits, indicate conclusively that at least twenty or thirty additional rooms will be demanded with the beginning of the school year 1926.

—An innovation in school equipment in Boston will be the library for the Roxbury Memorial High School group. The schoolhouse commission furnishes the space and equipment, while the Boston library will provide a permanent librarian, who will cooperate with the faculties of both schools in furnishing books, maps and other desired material for class use. In addition to serving the school children, the library will also be thrown open for the use of the community.

—Seattle, Wash. Plans have been formulated by the school board for an active campaign on behalf of the school building bonds. The proposed building program provides for the expenditure of \$2,500,000 for new buildings and additions in the next two years. The program takes care of every section of the city and provides for 5,840 additional pupils.

—Indianapolis, Ind. An expenditure of more than \$120,000 for operating the buildings and grounds department of the schools and for carrying out a program of improvement in 32 schools will be required for meeting deficiencies in the school plant, according to Mr. J. H. Hilke, superintendent of buildings and grounds. Approximately \$213,000, exclusive of architects' fees and other expenditures, bringing the total to \$244,000, have been spent, up to the present time, for improvements to buildings.

—Supt. J. E. Burke, of Boston, Mass., has issued a report showing that school children are outgrowing seating accommodations faster than the school board can provide places for them, and that in spite of additional seatings, the number of seats is far from adequate. In Dorchester, the school population shows an increase in the last five years of 2,429; in Roxbury, 2,423; in East Boston, 1,714; in West Roxbury, 1,009;



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in Charlestown, 875; in South Boston, 833; in Brighton, 805; in the north and west ends, 784; in Hyde Park, 774, and in the south end, 675. The large high schools have also shown increases in about the same proportion.

At present, there still remain nearly 11,000 pupils who are compelled to attend classes under unsatisfactory conditions in portables, hired rooms and in platoon classes.

—Important facts relating to the progress made in the building of new schools in New York City have been given in a recent report showing that between January, 1918, and January, 1925, there were provided 134,703 new sittings and that 117,120 sittings are under contract at the present time. It was indicated that 97,212 of these seats would be available on or before October 1st, next. Of this number, 24,100 have been or are to be put into use this month, 24,749 on or about June first, and 48,363 on or about the opening of the school year in September.

The estimated total cost of buildings under contract on January first was almost exactly the same amount. These will provide accommodations for 117,120 pupils at a cost of \$69,685,893. These buildings, together with those already opened, represent a total appropriation of \$138,954,283.88. To complete buildings, plans for which are now in progress, will require an additional appropriation, bringing the total sum to approximately \$178,000,000.

—The school district commissioners of Washington, D. C., have made a request for an additional appropriation of \$700,000 out of the district's surplus fund for the purchase of school sites. It has also been decided to ask for an additional list of school sites, on the theory that it is good business judgment to buy ground for sites well in advance of the time when schools are needed, and before prices begin to rise.

—Supt. John F. Gannon of Pittsfield, Mass., in his annual report, calls attention to the inadequacy of the present school facilities, pointing out that there are 675 pupils on part-time. He recommends the use of portable structures to take care of overflow classes until more permanent structures can be erected.

—The school board of Raymont, Wash., has disposed of the \$115,000 bond issue, the pro-

ceeds of which will be used for the erection of a new high school.

—Boston, Mass. The school board has prepared a table for the committee on municipal finance, showing in detail the financial aspects of the building program covering \$12,000,000 as provided in house bill No. 409 covering the years 1925, 1926 and 1927.

The program, as presented, covers plans for the taking of land and construction for immediate future only.

—Knoxville, Tenn. A \$2,500,000 bond issue for the expansion of the school plant has been proposed. The money will be used for the erection of new buildings and for an addition to the high school.

—At Pawhuska, Oklahoma, the state fire marshal was asked by the board of education to inspect the schools. He found the schools equipped with panic bar locks and in a general way safe structures.

—Mrs. Ferguson, the woman governor of Texas, has declared for a four years' holiday on schoolhouse construction. Thereupon the Globe-Gazette of Mason City, Ia., said: "In this part of her program 'Ma' Ferguson completely fooled her national audience. It has long been a popular theory that woman's first concern in public office would be the improvement of the public schools. Unless there has been extravagance in the Texas school administration and unless there is a four-years' surplus in school facilities in the state, the school program of the first woman governor is ill-advised."

—Kingsport, Tenn., has undertaken a building program to take care of an increased enrollment during the year 1925-1926. Of the two new structures to be completed for use in September, one is an elementary building of six rooms, and the other is a high school with a capacity of 500 students. With the completion of these buildings, the school plant will be entirely modern, with no building more than eight years old.

—Appalachia, Va. Plans have been prepared for a new school to cost \$150,000, to replace the building destroyed by fire on January 3rd.

—LaFollette, Tenn. The county board of education of Campbell County has begun the erection of an addition to the high school. The addition provides twelve additional rooms and

a gymnasium, making the school a twenty-room structure, with a gymnasium-auditorium. The cost of the building will be \$35,000.

—Pittsburg, Tex. Bonds in the amount of \$110,000 have been voted for the new high school to replace a burned structure. The contract for the construction work was let in March.

—Waco, Tex. A twelve-room elementary school, costing \$65,000, and a high school gymnasium, costing \$65,000, are in process of completion. An athletic field is also planned.

—A high school containing sixteen classrooms and an auditorium is approaching completion at Cooper, Tex. The building will be completed in May at a cost of about \$90,000.

—Portsmouth, Va. A sixteen-room elementary school is approaching completion and will be ready for use in September. The building is located on a three and one-fourth acre site, and cost complete, \$125,000. Another sixteen-room building will be erected this summer at a cost of \$125,000.

—Franklin, Tenn. A bill has been introduced in the state legislature giving the city of Franklin permission to extend the limits of the school district, and to issue bonds and levy a tax for a first-class high school. The schools of the special district will be placed under the control of the Franklin district board.

—Mission, Tex. The school board has erected an elementary school at a cost of \$65,000.

—The board of education of Cairo, Ill., has let a \$400,000 contract for a high school. Cris B. Hastings is the chairman of the building committee representing the board.

—The George Washington high school, in Manhattan Borough, New York City, was formally opened on February 23rd. The building is one of the finest of its kind in the country and cost \$3,500,000. The structure has a frontage of 376 feet, is four stories in height, and accommodates 3,750 students. An auditorium is provided with a capacity of 1,500 persons. The enormous cost of the structure is defended on the ground that inasmuch as it forms a memorial to Washington, the founder of the republic, it could be no less magnificent than it appears in actual form.

(Concluded on Page 98)



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FUN-FUL Playground Equipment is the result of experience, a quarter of a century devoted exclusively to the development and manufacture of children's outdoor health building goods by this Company. The best you can buy, this we guarantee.

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Furthermore, this dust is a sign of floor disintegration. Before long it is followed by holes and hollows that necessitate your laying a new floor surface or making repairs. Yet it is a simple matter to fix your concrete floors so they will never dust or wear. A treatment with Lapidolith will make them granite-like in their hardness.

Lapidolith is a liquid chemical that acts on the concrete, hydrates the free lime and changes the coarse structure to a fine-grained, crystalline formation that resists the hardest kind of wear indefinitely. The application can be made on either a new or an old concrete floor—overnight—and by morning the floor is ready for business.

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oils. Lignophol is odorless and non-inflammable. It turns out a floor that is smooth, hard, and sanitary, one that stays that way for many years.

Painted Surfaces—Painting time does not come around so often when interiors are painted with Cemcoat. One reason for this is the durability of this paint; another is the fact that it stays white long after other paints turn yellow. A surface covered with Cemcoat is bright and cheerful. It can be washed over and over again, and each time the paint comes forth as fresh and white as the day it was applied.

Because of its body Cemcoat requires one less coat as a rule. Furthermore, it adheres to a brick, plaster, or concrete wall just as easily as it adheres to wood.

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Roofs—If your roof leaks, cover that roof with Stormtight—the thick, elastic, waterproofing compound that sticks to any surface, wet or dry. Stormtight permanently repairs a leak in a few minutes. It does more than that, for if you have an old roof about due for replacement, Stormtight will save you the cost of reroofing.

Many an old leaky roof about due for renewal has been made as good as new by a coat of Stormtight. It is easy to apply; it goes over any material; it lasts for years; and it water-proofs a single leak or an entire roof just as effectively as though you covered the entire surface with a thin sheet of rubber. Send for literature and demonstration sample on any of the above-mentioned products.

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(Continued from Page 96)

—Ballinger, Tex., in December, voted a bond issue of \$100,000 for a new high school building. D. S. Castle, Abilene, is the architect.

—Erie, Pa. The new Harding school unit in the Ferncliff district has been partially opened to students. At present, five rooms are occupied and further rooms will be in use by next September.

—The \$1,000,000 school building program projected by the board of education of Colorado Springs, Colo., has been approved by William B. Ittner, schoolhouse expert.

—The board of education of Charleston, W. Va., has decided upon a new million-dollar high school on a fee basis, hoping thereby to save the taxpayers considerable money. The board recently rejected all bids because the lowest, not including equipment, ran up to \$985,000. The board has available from a recent bond issue something like \$600,000. By building the high school on a fee basis and utilizing the \$600,000 available from the bond issue, the board expects to realize the remainder necessary to complete the building by adding to the levy next August a sufficient millage. The new high school will accommodate sixteen hundred students and will be modern in every respect. It will have an auditorium for holding large community meetings, with a seating capacity of twenty-six hundred. The building will relieve present congestion in the senior high school and will permit the organizing of the school system on the six-three-three plan. Upon completion of the Woodrow Wilson Junior High School next August, Charleston will have four junior high schools.

SCHOOLHOUSE DEDICATIONS

—The new \$350,000 high school at Scotia, New York, was dedicated with an elaborate program. Charles R. Kellogg, president of the board of education, presided. Dr. James Sullivan, assistant state commissioner of secondary education, delivered the opening address. He was followed by Basil W. Conrad, principal of the high school, and Alexander Miller, the superintendent of schools. Superintendent Wilbur H. Lynch of Amsterdam, Superintendent Edwin R. Whitney of Schenectady, and Dean Edward Ellery of Union, were among the distinguished guests who extended greetings.

—The new Cooper Street school at Watertown, N. Y., was opened with appropriate ceremonies. Short addresses were delivered by Superintendent Frank S. Tisdale and Harold B. Johnson, president of the board of education. The keynote of the whole meeting was the thought that a dream had been realized and with the completion of one building so modern, the city should turn its attention to similar care for children in all sections of the city.

—The new high school at Plymouth (near Wilkes-Barre), Pa., was dedicated with an elaborate program. County Superintendent F. P. Hopper presided.

—The new \$200,000 Lincoln consolidated school, near Ypsilanti, Mich., was dedicated with an extended program. The speakers were Charles McKenney of the normal college, Frank Cody, president of the state board of education, and T. E. Johnson, state superintendent of public instruction.

—W. A. Meyer, president of the board of education, and Charles C. Hughes, superintendent, were the principal speakers at the dedication of the new John Muir school at Sacramento, Calif. Miss Ella G. McCleery is the principal of the school.

—The dedicatory ceremonies of the new Mary M. Knight school, at Matlock (near Shelton), Washington, took the form of a tribute to Mrs. Knight, a former county superintendent of schools. The principal address was delivered by Mrs. Blanche Nagel, assistant state superintendent of schools. The Knight school district was formed by the consolidation of four smaller districts.

—The Wallace memorial high school at Lebanon, Mo., was dedicated with addresses by Superintendent G. C. Jones of Laclede County, Principal Palmer Cain, and State Superintendent Charles A. Lee.

—The new junior high school at Corry, Pa., was dedicated with an address by Senator Woodbridge N. Ferris of Michigan. Harold L. Holbrook, of the Pennsylvania state department, also spoke.

—The speakers at the opening of the new Glendale district, Ohio, school were Superintendent A. E. Moody and President Bruce Taylor.

Dr. Otho Winger, president of North Manchester college, was the principal speaker at the dedication of the new Forest Park grade school at Fort Wayne, Indiana. The presentation addresses were delivered by Miss Desdemona P. Hale, principal, and James E. Ford, president, of the school board.

—The new school at Rosemond, Ill., was fittingly opened with addresses by O. P. Simpson, county superintendent and Roy L. Moore, assistant state superintendent. Principal Straagaard was in charge of the program. The board consists of George H. Scott, Charles E. Kimball and A. E. Cowgill.

—The new auditorium of the Point Arena, California, Union High School was formally dedicated on January 22nd. Informal talks were made by Dr. Huntley, a member of the board of trustees, Mr. Selzer, principal of the high school, and County Supt. Roy Good of Ukiah. Rev. Miller, of Alameda, gave an address on community problems and their relation to the school.

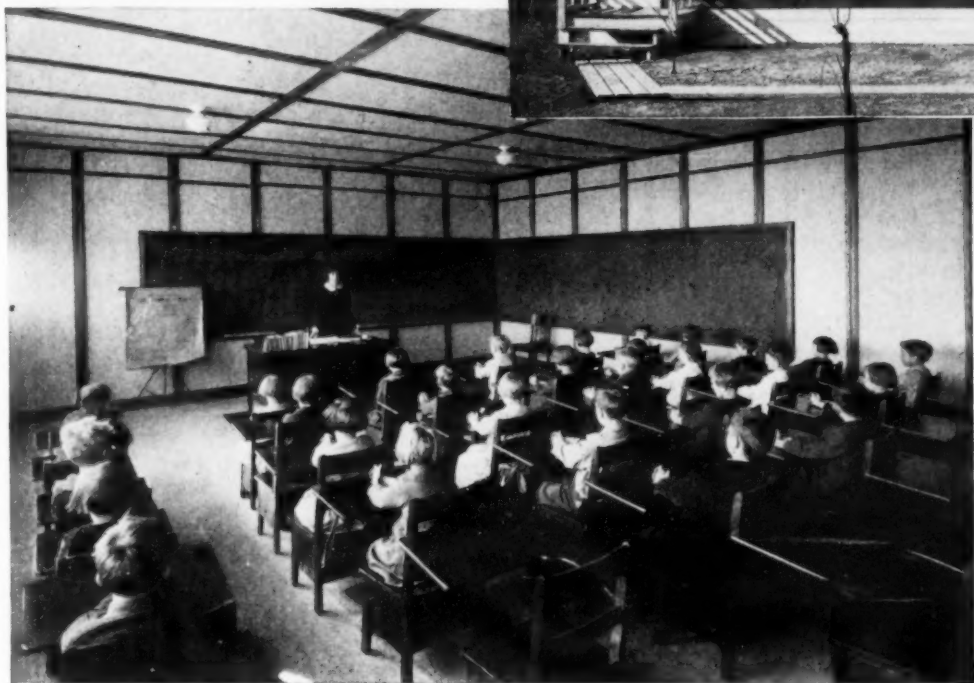
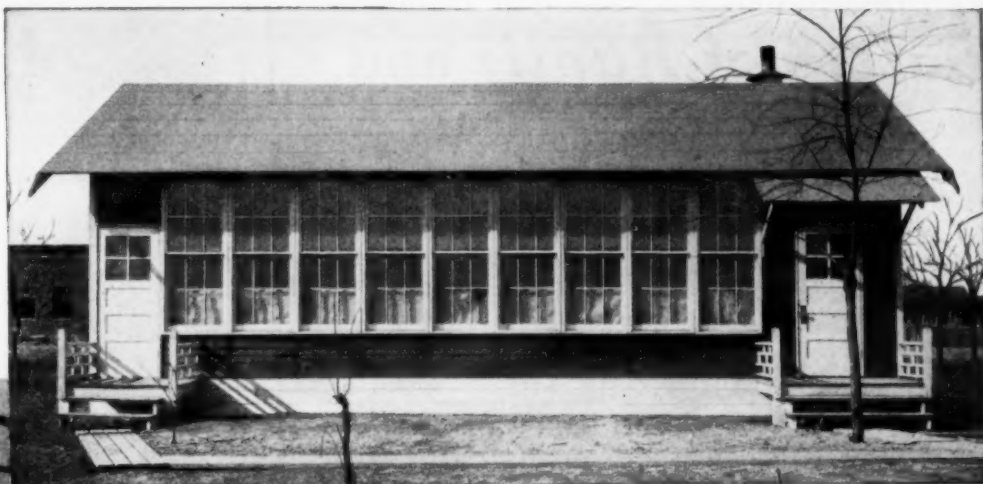
HIGH SCHOOL TEACHERS' SERVICE

The average duration of service among high school teachers is not far from five years. The chief causes of the turn-over are low salaries, loneliness and the lure of city life, unsatisfactory living conditions, the attraction of occupations offering a more vigorous life and greater opportunity, the attraction of marriage and home life, the irksomeness of teaching to persons ill fitted by nature or training for the profession, rebellion against ill-timed and ill-chosen control by superiors.—John C. Hanna, State Supervisor of High Schools, Springfield, Ill.

THE SINGLE SALARY SCHEDULE

"The single-salary schedule does not propose to pay all teachers equally, regardless of training and experience, but it does away with the invidious distinction between the high school and elementary schools in matters of salary. It puts them on the same basis, but this cannot be done in a day. Only in time will there come a complete recognition of the importance of elementary school teaching, but the single-salary schedule has been most effective in changing the attitude of the teachers and the public on this important point.—Jesse H. Newlon, Superintendent of Schools, Denver, Colo.

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(signed) R. E. OFFENHAUER,
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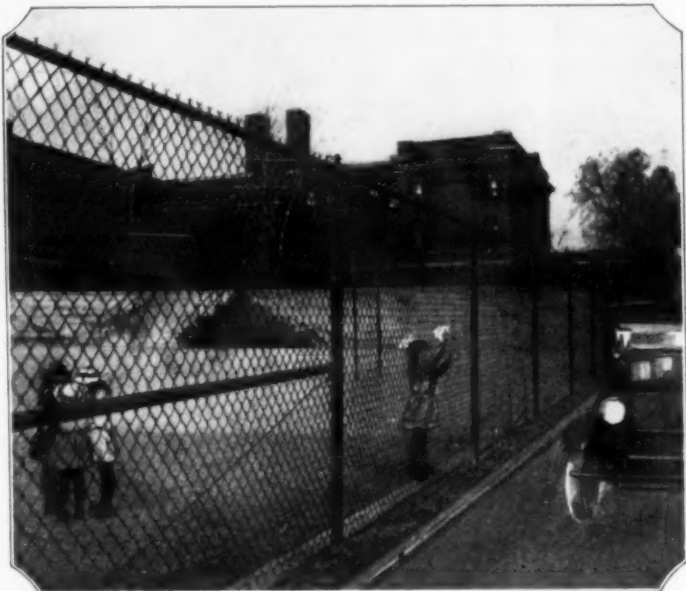
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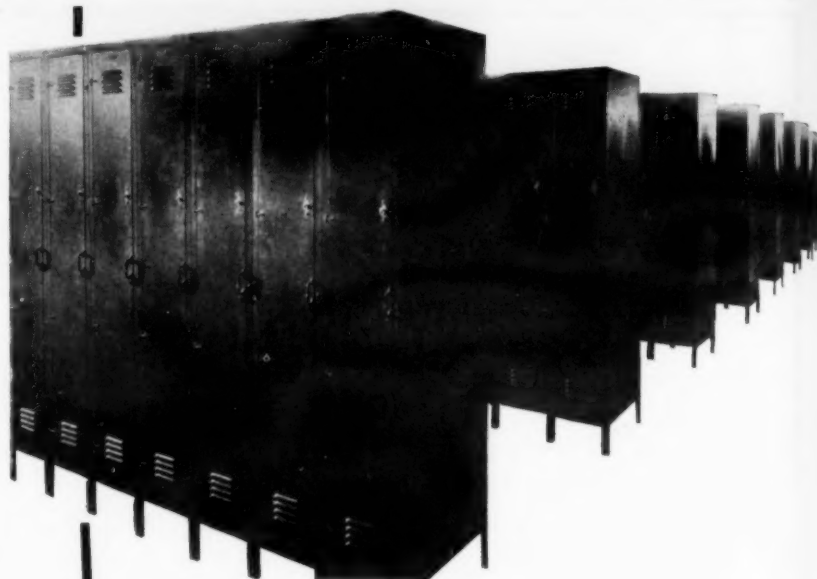
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We can also furnish other materials as required for school use.



Fire Insurance for School Property

The subject of fire insurance for the school-house property in the state of Pennsylvania has been studied by a committee of the Association of School Board Secretaries. The committee ascertained that 184 school districts own school property valued at \$158,100,841.24. Of this amount \$63,000,000 belongs to Philadelphia.

A report made by the committee to the association states that the total amount of insurance carried by the 184 districts reported is \$108,655,043.02. This insurance is carried as follows:

1 District, Philadelphia, Insurance Fund	\$ 47,000,000.00
83 Districts, 80% Co-Insurance..	53,347,612.02
34 Districts, Flat Insurance.....	3,167,775.00
33 Districts, Mutual Insurance...	628,995.00
33 Districts, not classified.....	4,510,661.00

Total amount of Insurance carried\$108,655,043.02
The fire losses reported by 184 districts were as follows:

Fire losses last year.....	\$ 49,447.02
Fire losses during last 5 years.....	442,866.66

According to reports submitted the average cost of insurance last year was:

Eighty per cent Co-Insurance.....	25c per \$100
Flat Insurance	55c per \$100
Mutual Insurance	20c per \$100

On the basis of the above rates, the premiums on \$108,655,043.02 carried by 184 Districts is as follows:

For last year.....	\$ 278,691.09
For a period of 5 years.....	1,025,353.00

From the above figures it is apparent that during the past year and for a period of five years, the cost of fire insurance was far in excess of the amount of losses. This fact is significant as it shows conclusively that there is a margin of saving to be effected in the matter of fire insurance on school buildings. Just what the best plan would be, the committee is not prepared to recommend. It does seem, however, that even should there be no radical changes suggested in the manner of placing fire insurance, these figures should be presented to the board of underwriters of the state of Pennsylvania and a corresponding reduction in rates of fire insurance on public schools requested.

The committee endeavored to ascertain the desires of the various school districts of Pennsylvania in regard to the manner of writing fire insurance. Four distinct plans were suggested:

(A) That necessary legislation be enacted to provide a fund in the state insurance department for insuring public school buildings along similar lines as now provided for the carrying of the State Workmen's compensation insurance.

(B) That the state take over the placing of fire insurance of school districts by creating a department for the writing of insurance on public school buildings. This plan is to provide for reinsurance with existing insurance companies, but eliminating the commissions now paid agents.

(C) To abolish all fire insurance now carried on school buildings and have losses paid out of the state appropriation or some fund provided by the state for that purpose.

(D) To continue under the present plan for having insurance written through local agents.

An analysis of the reports received shows the following preferences. This tabulation is made on the basis of first choice as expressed by the various districts:

Plan A was favored by 98 districts having a property valuation of \$55,398,939.77.

Plan B was favored by 15 districts having a property valuation of \$1,959,727.

Plan C was favored by 13 districts having a property valuation of \$10,028,768.

Plan D was favored by 22 districts having a property valuation of \$4,234,490.

Ninety-five districts, with a property valuation of \$36,943,596.10 signified their desire to place their insurance through the state as outlined in plans A or B.

Seventeen districts, with a property valuation of \$2,650,483.72, signified their desire to continue under the present plan of insurance as outlined in Plan D.

Seventy-two additional districts expressed their desire for plans A or B but did not fur-

nish us with any definite assurance that they would place their insurance through the state.

What Philadelphia is Doing

The city of Philadelphia is the only city in Pennsylvania which is attempting to carry its own insurance. The Philadelphia plan is, therefore, novel and from the success they have had is deserving of commendation to other districts in Pennsylvania. Philadelphia created an insurance fund in December, 1912, and at the present time has approximately \$1,500,000 in this fund. The city has placed in this fund approximately the amount necessary to carry fire insurance on all of their buildings and such surplus funds which they have available at the end of each year.

Philadelphia district, during the last ten years, has had fire losses of approximately \$300,000, which losses have all been paid from the insurance fund. We are informed that the Philadelphia school district, at the present time, is carrying all of its insurance through their fund. After twelve years of trial, the Philadelphia school district is entirely satisfied with their method and do not hesitate to recommend it to the larger school districts in Pennsylvania. There is, however, one danger in attempting this plan—the danger is the hardship that may be sustained by a district through the total loss of one of their large buildings. This danger is more applicable to the smaller districts. This plan has also worked very successfully in smaller cities; Lynchburg, Va., is cited as a small city in which this plan has worked with great success.

Chicago Carries No Insurance

Another plan that seems to be gaining in favor with the large cities is the plan of carrying no insurance whatever on public buildings. This plan is in effect by the city of Chicago and we quote the following letter received from the bureau of statistics of that city on this subject:

"According to information on file, three different policies have been pursued by the cities of the United States in the matter of insuring themselves against losses by fire, namely: (1) that of carrying no insurance at all; (2) that of carrying their own insurance by means of insurance or sinking funds; and (3) that of insuring in regular fire insurance companies.

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Smith's Improved Exit Locks Are the Best Locks Made for Schools, Theatres, and Industrial Plants

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Newark, New Jersey

"In the city of Chicago no insurance is carried on municipal buildings. As a general rule public school buildings in the city of Chicago are not protected by fire insurance for the reason that not once in the last 25 years has there been a total loss by fire in a public school building. It is also estimated that should there be a total loss of one school building by fire in a year, the amount paid in insurance premiums on the various public school buildings in Chicago would far exceed such single loss. The supply department of the board of education does not carry fire insurance as it is equipped with a water sprinkler system which renders it practically fireproof. The workshops, however, because of the highly inflammable material stored, are protected by fire insurance."

A Plan of State Insurance

In a supplemental report, the Association of School Board Secretaries proposes that the legislature create an insurance fund and the manner of its support by the several school districts. It says: "These payments should be based in proportion to value of school property and should not be in excess of the amount of insurance paid under the present plan of carrying fire insurance. These payments could be reduced or discontinued after a period of years, when the fund had assumed sufficient proportions to carry any probable losses. In order that the success of this plan be assured, it should be compulsory for all school districts to carry their own insurance in this manner."

After recommending the Philadelphia plan, the association says: "We believe that the saving effected by the adoption of this plan would be of sufficient proportions that, in a comparatively short time, it would not be necessary for school districts to make any further contributions toward this fund. This statement is based on the fact that last year 184 districts paid insurance premiums amounting to \$278,691.09, while the fire losses for that period were \$49,447.02, or less than 20 per cent of the amount of premiums paid. If this same proportion of saving were continued for a period of years, the investments from the fund would soon afford insurance against losses in the same manner as losses are now paid by perpetual mutual companies."

RULES GOVERNING USE OF BUILDINGS

—The school board of Pocatello, Ida., has adopted rules to govern the community use of school buildings. Under the rules, no school may be used by any organization or group teaching or preaching doctrines subversive of the constitution or the laws of the United States, or for private or corporate gain, or for religious or political meetings. The rules read:

1. Free Use of Buildings—

The buildings may be used without cost by the following types of organizations:

- Parent-Teacher associations.
- Associations formed for the improvement and betterment of local communities, such as the present improvement associations.
- The Boy Scouts, Camp Fire Girls, and similar semi-educational organizations, when properly supervised and chaperoned.

2. Use of Buildings Upon Payment of Fees—

Subject to the conditions named elsewhere in these rules, and upon payment of the charges as set forth in the schedule of charges, the school buildings of Pocatello may be used by other organizations or groups for meetings intended for recreation, self-improvement, or community improvement. Buildings may not be used for the promotion of any commercial interest or private gain.

3. Cases in Which Use of Buildings Will Not Be Allowed—

The schools may not be used (1) by any individual, group, or society that teaches or preaches any doctrine or theory subversive of the constitution or laws of the state of Idaho or of the United States, or advocates social or political change by violence or revolution; or (2) for private or corporate gain; or (3) for religious or political meetings.

4. Schedule of Charges Where Admission Is Not Charged—

The charges for the use of various types of rooms in the school buildings will be as follows:

- Elementary schools—
 - (1) Classroom\$1.50
 - (2) Auditorium 2.50
- Junior high schools—
 - (1) Classroom\$1.50
 - (2) Auditorium 5.00
 - (3) Gymnasium 3.00

c. Senior high school—

- (1) Classroom\$1.50
- (2) Auditorium 7.50
- (3) Gymnasium 3.50

Payments shall be made at the time of the filing of the application for the use of the building.

5. Schedule of Charges for Entertainments to Which Admission is Charged—

No entertainment may be given in a school, the proceeds of which are to go for the private benefit of any individual or association or firm. The net proceeds of all entertainments must be used for civic, philanthropic, charitable, or educational purposes.

The schedule of charges for the use of buildings for entertainments to which admission is charged shall be as follows:

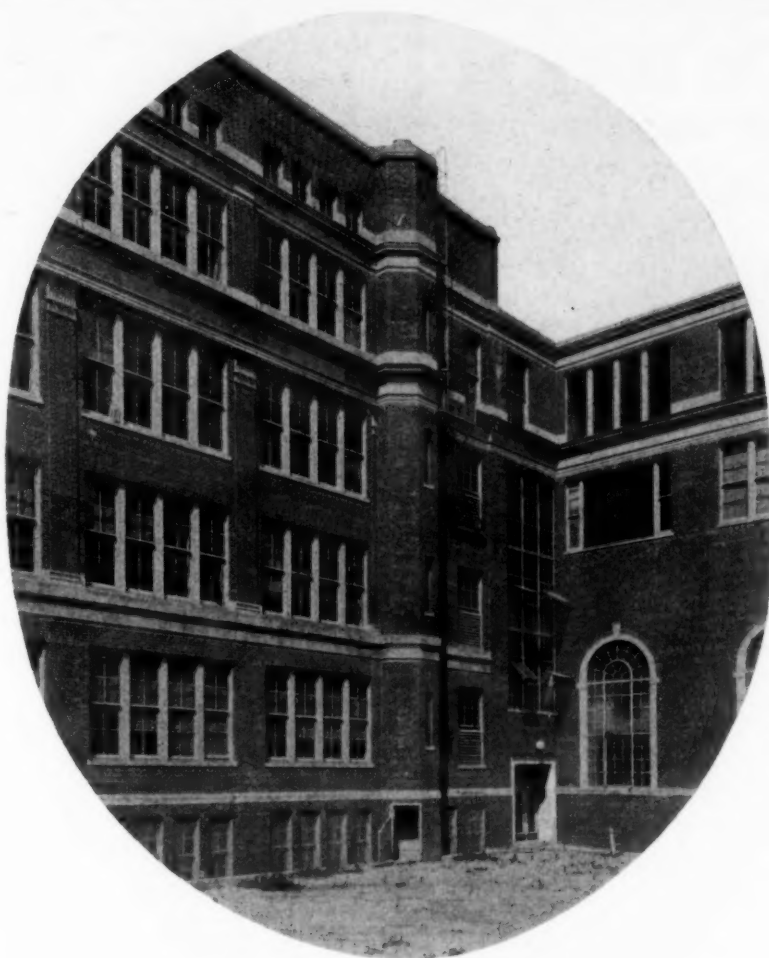
- Elementary schools—
 - (1) Classroom\$ 3.00
 - (2) Auditorium 10.00
- Junior high schools—
 - (1) Classroom\$ 3.00
 - (2) Auditorium 15.00
 - (3) Gymnasium 12.00

—The organized labor council of Joliet, Ill., has begun an investigation of the school finances. A committee of five has been appointed to meet with the school board and to learn the amount of money necessary to operate the schools.

—Paterson, N. J. The annual budget of the schools for the year 1925-1926 has been fixed at \$2,570,000, which is an increase of \$255,162 over that of last year.

—A tentative bill, sponsored by the Arkansas School Directors' Association proposes certain drastic changes in the state tax system for the purpose of providing financial relief for public schools in the state. The bill would increase property assessments from a fifty to a one hundred per cent basis, the rates to be automatically reduced as the assessments increase, except in the case of school taxes, the rates for which are fixed by a vote of the taxpayers.

Under the bill, the school tax rate would be fixed each year by the voters at a figure that would provide sufficient revenue to cover the annual budget made by the board. With a one hundred per cent assessment and a twelve-mill limit, there would be an equivalent of a 24-mill rate under the present system.



Remember This About Fire Escapes

Fire escapes are as essential on new schools as on old ones. Many a new school would make a surprisingly merry blaze. Some of our best fires have been furnished by the burning of "fireproof" buildings.

The above illustration shows a neat, practical Standard installation on a new building at the Omaha Technical College, Omaha, Nebraska. It

really adds to the good appearance of the building, doesn't it?

After a fire tragedy, it is poor consolation to yourselves or the people who elected you, to say "We thought the building was proof against fire loss."

The way to make a new school absolutely safe from loss of life by fire is to equip it with Standard fire escape equipment.

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Through the media of better buildings and more modern equipment we are constantly teaching our children lessons of incalculable value. Let us go a step farther and teach them to cut down the enormous fire waste which exacts its annual toll of lives and money. This lesson can well be taught by the use of Dahlstrom Fireproof Doors and Trim.



DOW *spiral slide* **FIRESCAPE**

In that terrifying moment when it is a question of life or death by fire, Dow Spiral Slide Firescapes have never failed to function.

Little lives have been delivered safely to anxious arms and mothers have been spared lives of regrets.

Equip *your* school with Dow Firescapes—now—before it happens. Write today!

THE DOW CO.
300 NORTH BUCHANAN ST.
LOUISVILLE, KY.

COMPULSORY ATTENDANCE AND CHILD LABOR LAWS

"We occasionally hear the very loud voice of the individualist who proclaims that a country ceases to be a democracy when a parent no longer remains the sole judge of what is good for his child. So loud is his argument, and so strong his set opinion, that we are compelled by legal process to compel school attendance of his children."

This is the introductory paragraph of an address recently delivered before the Association of School Secretaries of Pennsylvania by Miss Mildred Fischer, state supervisor of attendance. She continued:

"To serve legal notices and to prosecute parents for violation of the school law brings about quick results, but it is not a permanent remedy, unless additional steps are taken to acquaint the parent with the beneficent purpose of the law and to make conditions in the home and school favorable for continued school attendance. Furthermore, legal action can be applied only to unlawful absences, whereas all absences are a decided loss to the school child, and legal absences should be deplored as much as illegal ones, and should be reduced to a minimum."

"If poverty exists, and child labor must supply additional income; if the father (the only breadwinner in the family) dies, or deserts his family; if the parents are shiftless and indifferent; if illness exists in the home; if the child lacks mental ability to meet with success in the schoolroom; if he is playing truant to escape what to him seem 'impossible tasks' at school; if the teacher lacks knowledge of the child's home background and is unsympathetic; if any of these problems or similar ones exist as underlying causes of non-attendance, then fining parents cannot be a complete 'cure-all.' The very fact that the problems are of so great a variety points to a need of variety in the method of handling them."

"It has probably been your experience that the majority of parents have recognized the wisdom of an attendance law, and have willingly complied with it. It is the exceptional case with its exceptional problem that is now becoming the concern of the different school boards. The children must be in school, and a way must be found to get them there. It

is only fair that school officials attempt to make it possible for the parents to get them there, and it is time to begin thinking about plans that can be carried out just as soon as the districts or the state can afford it. We need to have the goal, then we'll make the effort to reach it."

Child Accounting

"Private or parochial schools are required to send their enrollment to the proper public school official. This will furnish evidence to the district that these children are actually in attendance at school. All names not accounted for on the assignment lists by the end of the third school day will be reported to the attendance officer by the teacher for investigation. In fourth-class districts pupils that are not in attendance at the beginning of the term because of the non-compulsory attendance period, must be enrolled and marked absent. In every such case the pupils should be encouraged to come to school when their services are not required at home, so as to lose as little school work as possible."

"The non-compulsory attendance period ends on the day fixed by the school board, and with it ends the privilege of keeping children home from school for housework or farm work under the provision of Section 1414. It is gratifying to know that less than fifty per cent of the fourth-class districts have reduced the compulsory attendance period. In a few schools where the compulsory attendance period has been reduced, a percentage of 30 has been recorded—one might draw the conclusion from this fact, that if a compulsory attendance law did not exist, one-third of the pupils of these districts would attend school and two-thirds of them would not have the opportunity to go to school. Our uniform system of recording attendance in Pennsylvania makes 'percentage of attendance' mean something specific, namely: it is a measure of the completeness with which school facilities in each district are reaching every child of school age. A percentage of thirty, then, would represent a great financial waste to a community."

"Just as our policies concerning other lines of school work are forward looking, policies concerning school attendance must be progressive ones. Shall we resolve:

"That we shall accurately account for all children between 6 and 16 years of age at the beginning of the term; that home visits shall be made by the best person the district can afford, and that this person shall receive such reports from the teachers that will help him (or her) make intelligent, constructive home visits?"

"That the attendance officer shall give return reports to teachers and give teachers such information concerning the pupil that will help make for a better understanding between them?"

"That we shall have a county directory in every county superintendent's office of all social agencies whose assistance is available in the county, and then resort to such agencies that employment certificates and permits shall be issued and filed in an up-to-date, business-like manner?"

"That attendance statistics and age grade tables of our individual districts shall be analyzed, and shall lead to the adoption of more helpful school policies?"

PROPOSED PROVIDENCE SCHOOL BOARD PLAN

The Rhode Island legislature has under consideration a bill which reorganizes the Providence board of education. It reduces the board to seven members, five elected by wards, and two at large, one, the latter to be a woman.

It further provides that the school committee shall file a budget with the city council stating the needs of the schools and recommending new construction work, location of new buildings, additions to be made to standing school buildings, and so forth.

It provides that the city council shall order the money appropriated, that is, if the total sum does not exceed 35 per cent of the average annual revenues of the city derived from general taxation during the three fiscal years next preceding the fiscal year during which the budget is filed.

In case the city council does not approve construction or improvement work, the qualified voters of the city of Providence, in a referendum, shall decide, thus taking a veto power from the council. Under it, the initiative for all school work must start with the school committee and not with any other city department.

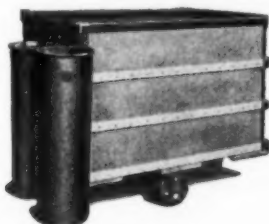
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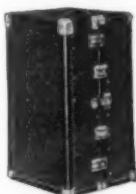
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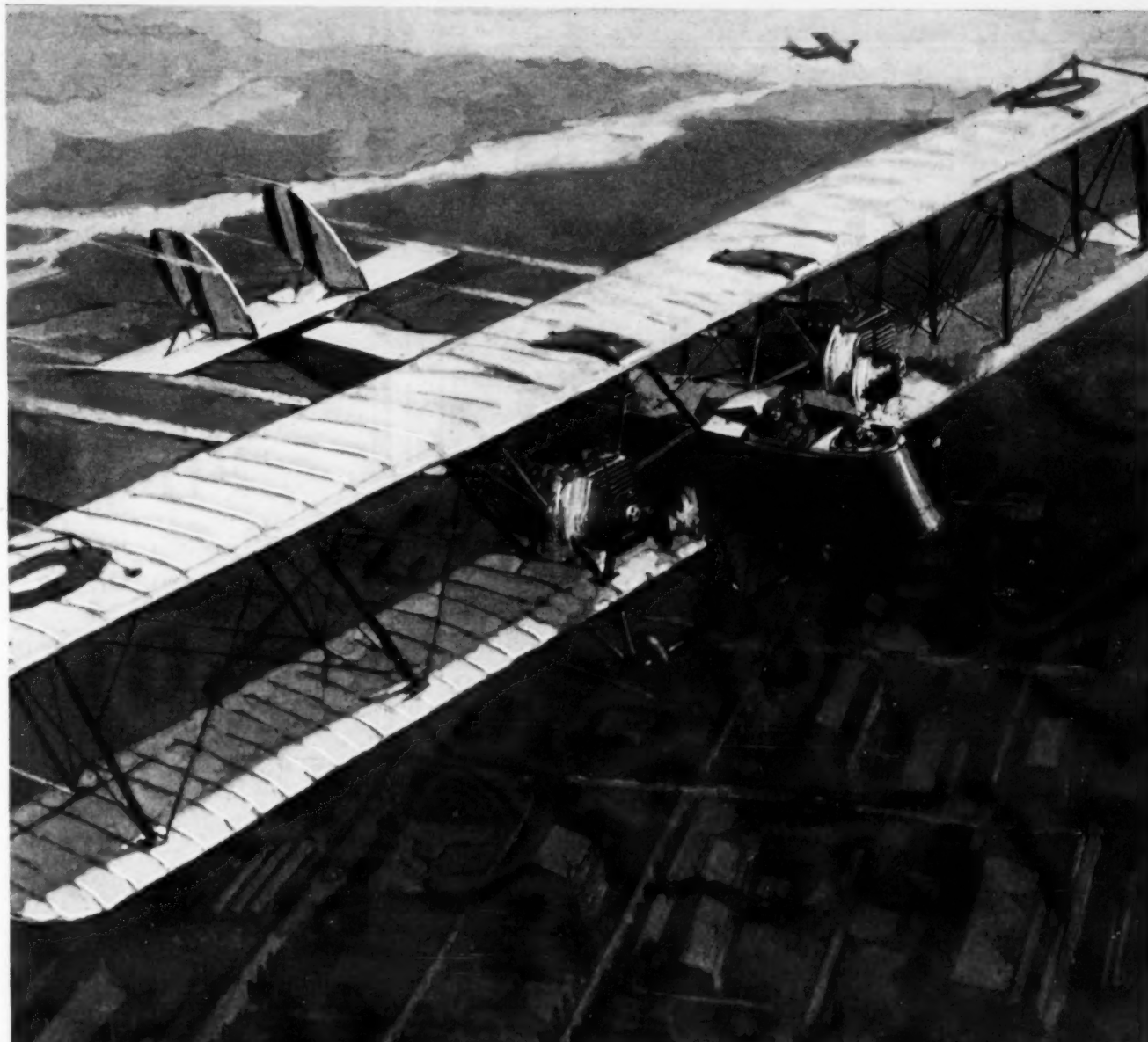
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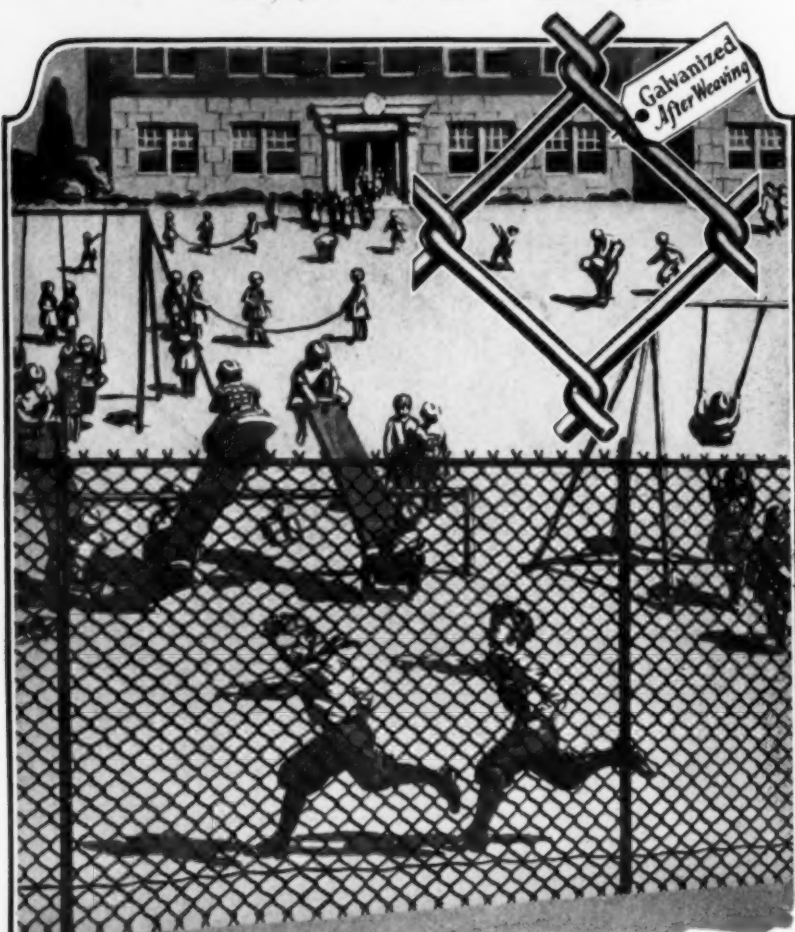
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Fences that last for decades

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Secondly — because this fabric is *Galvanized After Weaving* as a double safeguard against corrosion.

Thirdly—because of our *drive-anchor* method of securing the posts.

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To assist school officials who have occasion to buy or specify fences and gates, we have prepared a comprehensive Specification Manual which contains much valuable and helpful data, and, as well, full information regarding the lasting construction of Anchor Products.

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PERSONAL NEWS OF SUPERINTENDENTS

—Supt. Wm. F. Webster of Minneapolis, Minn., has been reelected for another three-year term, beginning with August 1st.

—Mr. E. E. Crampton of Tecumseh, Mich., has been elected superintendent of schools at Belding, to succeed S. J. Skinner.

—Supt. F. M. Hunter of Oakland, Calif., has been reelected for another four-year term, beginning with July 1st.

—Supt. W. A. Wood of Pratt, Kans., has been reelected for a two-year term.

—Supt. E. P. Fisher of Caldwell, Kans., has declined a reelection for the next school year.

—Supt. J. G. Moore of Fargo, N. D., has been reelected for another year.

—Supt. A. F. Senter of Ottawa, Kans., has been reelected for a two-year term. Supt. Senter is entering upon his tenth year as head of the Ottawa schools.

—Supt. A. M. McCullough of Paola, Kans., has been reelected for another two-year term.

—Supt. O. C. Pratt of Spokane, Wash., has been reelected for a three-year term.

—Supt. P. M. Vincent of Stevens Point, Wis., has been reelected for another year, with a substantial increase in salary.

—Mr. J. H. Peet of Anamosa, Ia., has been elected superintendent of schools at Washington, to succeed W. C. Harding, who declined reelection.

—Supt. L. J. Gillis of Rock Rapids, Ia., has been reelected for another three years.

—Miss Pauline B. Camp has been appointed director of child guidance for the board of education at Madison, Wis. Miss Camp will have charge of special classes for the correction of defects among school children.

—Supt. A. L. Cook of Harbor Beach, Mich., has been reelected for another year.

—Supt. R. T. Allen of Cleveland, Tenn., has been reelected for a three-year term.

—Mr. Thomas E. Johnson has announced his candidacy for renomination to the office of state superintendent of public instruction of Michigan. There appears to be no candidate against Mr. Johnson and educational forces of the state have united in support of Mr. Johnson.

—At a recent meeting of the board of trustees of Teachers College, Columbia University, a number of changes in the faculty of education

were effected. Mr. P. N. Symonds and Mr. D. H. Kulp were appointed assistant professors of education; Mr. J. R. McGaughey and Mr. Carter Alexander were promoted to associate professorships in education, and Mr. James F. Hosc was made a professor of education. Sabbatical leaves of absence for the year 1925-1926 have been granted to M. B. Hillegas, Mabel Carney, Elizabeth C. Cook, E. K. Fretwell and C. J. Martin.

The trustees have established the "Detroit Scholarship and Student Loan Fund" on a foundation provided by a gift of \$1,000 per annum from Miss Mercy Hayes. The fund provides for teacher-training for teachers of the intermediate and senior high schools of Detroit, and the award of scholarships and assignment of loans is under the control of a committee of Detroit teachers, subject to the action of the trustees and faculties of Teachers College.

—Supt. R. T. Allen of Cleveland, Tenn., has been reelected for a period of three years, beginning with July 1st next.

—The degree of Doctor of Laws was conferred upon Superintendent E. C. Broome of Philadelphia by the Ursinus College.

—Supt. H. B. Wilson of Berkeley, California, who was placed in a predicament through the defalcations of Secretary Clyde I. Blanchard, in that it was intimated that the former possessed guilty knowledge, has been fully exonerated by the board of education.

—Vernon G. Mays was, for the third time, reelected principal of the Fergus County high school at Lewiston, Montana. Before going to Lewiston, he was for seven years principal of the high school at Lincoln, Nebraska. For a time he was also superintendent of schools at St. Joseph, Mo.

—Robert K. Bennett was reelected superintendent of the Central Falls, R. I., schools. His salary was increased from \$3,500 to \$3,700. Joseph T. Curran, a member of the board, said: "Other cities the same size as Central Falls pay bigger salaries to their school heads than we do, and the increase is in accordance with our policy of getting Central Falls where it belongs."

—B. G. Merriam was unanimously reelected superintendent of the Framingham, Mass., schools.

—Supt. James W. Bradner of Middlesboro,

Ky., has been reelected for another three-year term, with a substantial increase in salary. During Mr. Bradner's incumbency, the high school enrollment has increased fifty per cent and the enrollment of the whole twenty-five per cent. Four grade buildings and one junior high school have been erected during this time. The school revenues have increased 125 per cent.

—Supt. R. O. Ives of Sullivan, Ill., has been reelected for another year.

—Supt. C. W. Weatherwax of Missouri Valley, Ia., has been reelected for a three-year term.

—Mr. W. A. Stacey has resigned as superintendent of schools at Abilene, Kans., after a service of nineteen years.

—Supt. O. C. Eidal has been reelected at Wilkeson, Wash.

—Supt. N. N. Nash of Emmett, Ida., has been reelected for another year.

—Supt. R. N. Tirey of Bloomington, Ind., has been elected president of the Indiana City Superintendents' Association. Other officers elected were Supt. E. N. Canine, East Chicago, vice-president; W. C. Goble, Converse, secretary-treasurer.

—Supt. W. O. Lippitt of Fergus Falls, Minn., has been reelected for another year.

—Mr. Jesse R. Overturf, for two years superintendent of schools at Lodi, Calif., has been made assistant superintendent of schools at Sacramento. Mr. Overturf is a graduate of the University of Nebraska and has had considerable administrative experience.

—Supt. E. E. Cortright of Bridgeport, Conn., has accepted an assistant professorship in the School of Education of New York University. Mr. Cortright is well known to the faculty of New York University and has conducted a summer course at that institution.

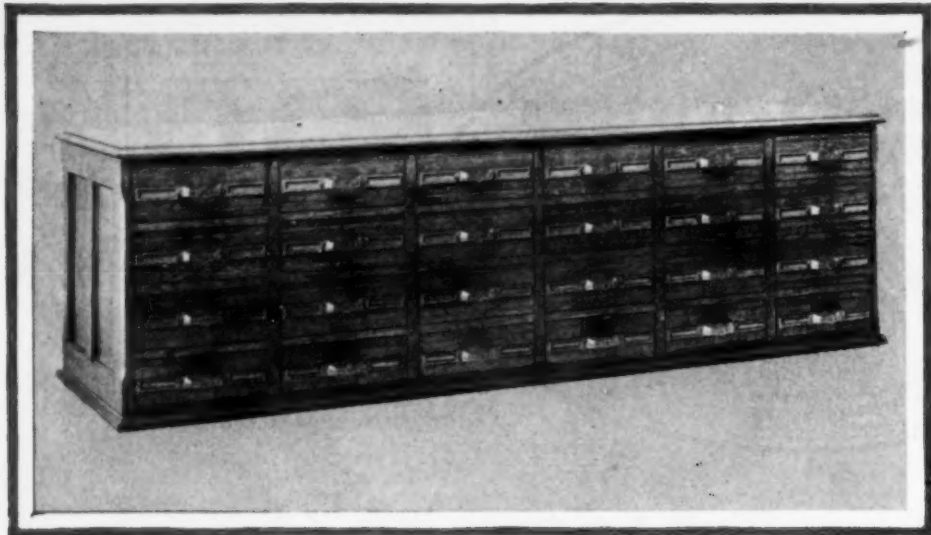
—Mr. P. N. Heck has been reelected superintendent of schools at Harper, Kans. Mr. Heck is entering upon the ninth year of his service.

—Supt. Thomas E. Lewis of Sleepy Eye, Minn., has been reelected for another year.

—Supt. C. H. Ream of Clear Lake, Ia., has been reelected for another year.

—Supt. G. E. Chadwick of Gladwin, Mich., has declined reelection for another year.

—Supt. E. L. Weaver of Clarinda, Ia., has been reelected for a term of three years.



L. B. Catalogue case from Lehigh University Library, Bethlehem, Pa., Howard Seaway Leach, Librarian

In writing about the L. B. catalogue case, illustrated above, Mr. H. S. Leach, Librarian of Lehigh University, states:

"In regard to the catalogue case which we sent you sometime ago for your museum, Mr. Stauffer, who has been connected with the Lehigh University Library for some thirty-seven years, informs me that this was the original case secured soon after the opening of the library, which took place in 1878. He is sure that the case was in use forty years, and perhaps forty-five years."

This case is now on display at our New York showroom. You are cordially invited to inspect. It will amaze you to see how well preserved it is after 40 to 45 years of continuous use.

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Library Bureau

LIBRARY FURNITURE AND SUPPLIES FOR EVERY SCHOOL NEED . . . THE CHOICE OF AMERICAN LIBRARIANS

—Supt. Wm. F. Webster of Minneapolis, Minn., has been reelected for a three-year term, beginning with August 1st.

—David A. Ward was unanimously reelected superintendent of the Wilmington, Del., schools for a third term, the new term beginning with July 1, 1925.

—Edward J. McNamara was chosen principal of the high school of Commerce of New York City. Mr. McNamara is a graduate of Manhattan College and Columbia University. He is the president of the Association of Administrative Assistants.

—E. Everett Cortright, superintendent of the Bridgeport, Conn., schools announced that he would terminate his connection by July 15th. Some opposition was engendered in the board of education which threatened to culminate at the end of his term. The board members were somewhat surprised when the resignation came. Mr. Cortright has another position in New York state.

—Supt. S. A. Aus, of Fertile, Minn., has been reelected at a salary of \$2,500 a year.

—Supt. F. E. Perkins of Crosby, Minn., has been reelected for a fourth consecutive term.

—Mr. N. J. Leshner of Gas City, Ind., has been elected superintendent of schools at Seymour, Ind., to succeed Thomas A. Mott. Mr. Mott retires at the close of the present year after a service of twelve years.

—Supt. W. O. Lippitt of Fergus Falls, Minn., has been reelected for the next year, at a salary of \$3,500 per year.

—Mr. Edgar A. Lewis has resigned as superintendent of schools at Bath, N. Y.

—Mr. E. L. Smith has been elected superintendent of schools at Marietta, Okla.

—Supt. R. B. Irons of Winona, Minn., has been reelected for a sixth consecutive term.

—Supt. W. A. Gamble of Northwood, N. D., has been reelected for a fourth term.

—Mr. Frank Jones, of Strawberry Point, Ia., has been elected superintendent of schools at Anamosa, succeeding J. H. Peet.

—Supt. J. L. Breckenridge of Couer d'Alene, Ida., has been reelected for another term.

—Mr. D. A. Stephenson has been elected superintendent of schools at Nampa, Ida.

—Supt. G. P. Randle of Danville, Ill., has declined reelection at the close of the present

school term. Mr. Randle has completed twelve years' service in Danville.

—Supt. Wilbur S. Young, of Springfield, Tenn., has been unanimously reelected for a term of three years. Previous to his election at Springfield, Mr. Young spent eight years in private preparatory schools in the state.

—Supt. N. B. Mahuron has been unanimously reelected head of the schools at Liberal, Kans. Mr. Mahuron has completed three years of continuous service in Liberal.

ASSOCIATION ELECTIONS

—J. C. Bond, superintendent of the Macon, Mo., schools, was elected president of the Missouri State School Administration Association. Other officers elected are: Vice-president, L. E. Ziegler, Maryville; secretary-treasurer, L. H. Strump, Des Loge; executive committee, J. L. Campbell of Liberty and L. B. Hawthorne of Mexico to serve for three years; W. M. Oaker-son of Jefferson City, to serve for two years; and Arthur Hoech of Overland, to serve for one

year. The next year's meeting of the association will be held at Columbia.

—Dr. W. Allen Messler was elected president of the Jersey City teachers' association. He is the principal of the Teachers' Training School of Jersey City.

—The Elementary Principals' Association of New Jersey is organized with the following officers: President, Lawrence S. Chase, Montclair; vice-president, Ann Troy, Nutley; secretary, F. H. Budd, Asbury Park; treasurer, Edward Dutcher, East Orange. Members of executive committee: L. H. Dix, Woodbridge; Harold Phillips, Newark; Howard J. McNaughton, Orange; Ide G. Sargeant, Paterson; Julia C. Harney, Jersey City.

—Miss Alice Grace, who had taught in the schools of Denver, Colo., for the past 35 years, was recently retired on a pension. Miss Grace had taught in Canon City previous to coming to Denver in 1890.



SCHOOL CHILDREN IN THE GREAT TORNADO.

The horrible tornado which swept through parts of Illinois, Indiana, Missouri, Kentucky and Tennessee, destroying a thousand human lives and causing the destruction of much property, also killed many school children and wiped out several schoolhouses.

At Murphysboro, Ill., the Longfellow school was wrecked and some sixty children lost their lives. The principal, who rendered valuable service in protecting his charges, narrowly escaped.

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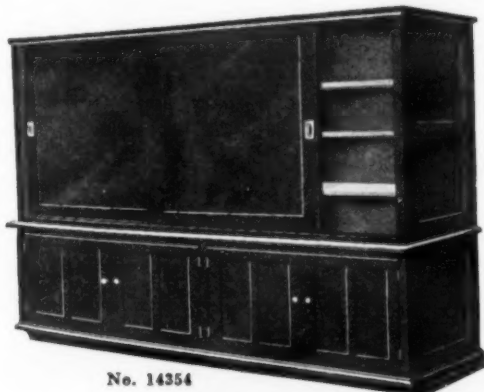
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A letter from the Superintendent of Schools in a large city in Texas states:

"It gives me pleasure to state that Mr. C. G. Campbell is an expert in his line of work. When we were equipping the laboratory of our new high school last winter he was of inestimable value to us in making suggestions and in helping us to put into shape our own ideas. Mr. Campbell has had such a wide experience that he seems to know the laboratory furniture problem thoroughly. I can therefore recommend Mr. Campbell to any Board of Education about to equip laboratories or manual arts departments."

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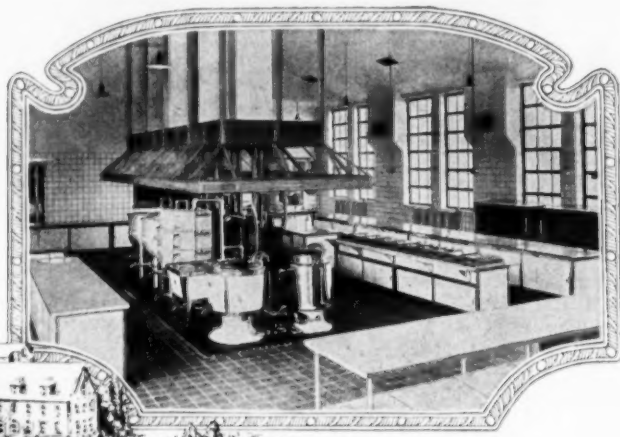
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WASHINGTON SCHOOL BOARD CONVENTION

The state of Washington maintains a state school board association. It bears the name of Washington State School Directors' Association. At the recent convention, the exemption of school busses from license charges was urged. The uniform supervision of both public and private schools was discussed. The legal status of the junior high school came in for attention, also the question of creating building funds through the accumulation of taxes.

The legislative committee was instructed to secure data on the free textbook question. The committee represents five districts as follows: First district, O. L. Amos, Charleston, Kitsap county; second district, Mrs. Nellie Benson, Coupeville, Island county; third, Henry C. Sicade, route 2, Tacoma, Pierce county; fourth, J. J. Gilchrist, route 1, Wenatchee, Chelan county; fifth, B. F. Kumler, chairman, Yakima, Yakima county.

Resolutions were adopted asking the legislature to pass no legislation which would in any way affect or hamper communities in voting school bond issues. The question receiving more attention than any other was that of taxation, and the lack of adequate school finances.

The delegates in attendance were: J. T. Gilchrist, route 1, Wenatchee; E. A. Wells, Leavenworth. Clallam—Mrs. Irma E. Horstman, Port Angeles; H. B. Smith, Forks; Harry Beetle, Port Angeles. Cowlitz—G. N. Campbell, Kalama; J. H. Secrist, Longview; Mrs. D. J. Hille, Castle Rock. Douglas—Dr. J. H. Winstanley, Waterville. Franklin—Mrs. C. W. McLean, Connell. Island—Mrs. Nellie Benson, Coupeville; J. M. Grant, Langley. Jefferson—Mrs. Fannie G. Brown, Port Townsend; Mrs. Anna Munn, Leland; C. E. Giles, Chimacum. Kittitas—P. H. Olmstead, route 2, Ellensburg. Wash. Klickitat—W. C. Alloway, Husum; J. M. Ray, Goldendale. Pacific—Z. B. Shay, Willapa. Pierce—Henry Sicade, route 2, Tacoma; J. H. Moos, route 4, Tacoma. Skagit—Charles Elde, route 1, Mount Vernon; W. E. Jennings, La Conner; J. G. Green, Clearlake; Mrs. Blanche George, Anacortes. Snohomish—Peter Henning, East Stanwood. Spokane—C. W. Cahill, Sharon; James P. Dillard, Dishman. Stevens—W. R. Lesley, Chewelah. Thurston—O. E. Ferguson,

Little Rock; Mrs. Waters, route 1, Olympia; Mrs. Claughton, Olympia; A. G. West, Tumwater. Wahkiakum—J. H. Harrison, Deep River; E. C. Martin, Skamokawa; S. A. Olsen, Puget Island. Walla Walla—Charles Auker, College Place; Mrs. C. I. Morgan, Prescott; W. S. Hedger, route 2, Walla Walla. Whatcom—Dr. C. C. Hills, Custer. Whitman—Dr. G. R. Galbraith, Garfield; G. H. Watt, Pullman; H. S. Griffith, Farmington. Yakima—B. F. Kumler, Yakima.

County superintendents in attendance were: Pearl A. Anderson, Island county; Miss Jean C. Gibson, Goldendale, Klickitat county; Mrs. Jean T. Fredson, Sheldon, Mason county; Mabel Graham, Mount Vernon, Skagit county; J. A. Jacobson, Everett, Snohomish county; J. B. Hergesheimer, Colville, Stevens county; C. L. Conoll, Olympia, Thurston county; G. C. Woods, Walla Walla, Walla Walla county; Nellie H. Abbott, Bellingham, Whatcom county; Mrs. Myrtis Bright, Lewis county; Henry Sicade, of Pierce county, William Hedger of Walla Walla county, and W. R. Leslie were the most experienced directors, having served from 25 to 31 years each.

SCHOOL BOARD CONVENTIONS

The sixteenth annual convention of the school trustees of Bannock County was held at Pocatello, Idaho. W. H. Wittye defended the religious education bill now before the legislature. "Requirements of Teachers" was the subject of an address by Prof. C. H. Lewis of the Idaho Technical Institute. "Character Education" was discussed by W. R. Siders, superintendent of the Pocatello schools. A resolution favoring the county unit of school government was passed. The county trustees felt that there was a great deal of unnecessary expense by permitting each school district to buy its own supplies, books, etc. If a county unit was established from which each school district could order supplies a great deal of time and money could be saved. The supplies could be bought in larger quantities and money could be saved on freight. Also books could be obtained in the schools in less than a fifth of the time now required. The association elected the following officers: President, William H. Mendenhall, Thatcher; Vice-President, M. M. Bush, In Kom; Secretary, O. E. Hendricks, Swan Lake.

At Oklahoma City, Okla., a county school board association was organized. Henry Beveridge of Spencer school, district No. 35, was elected president. J. H. Goff of Consolidated No. 9, Jones, was elected vice-president, and A. E. Broadly of Council, district No. 41, secretary-treasurer. The meeting was called by Mrs. Ida M. Hale, county superintendent of schools.

The school board section of the Kansas State Teachers' Association met at Topeka. Among the speakers were Superintendents J. H. Beveridge, Omaha; Ira J. Bright, Leavenworth; C. A. Smith, Beloit, and John G. Campbell, president of the Wellington board of education.

Wilmington, Del. The school board has approved the proposed school building program prepared by Mr. P. S. DuPont, and now pending before the general assembly of the state. The local educators are supporting Mr. DuPont as a prospective member of the commission to have charge of the building activities.

The school board of Topeka, Kans., has appointed a special committee to have charge of the preliminary plans for the new schools to be erected this year.

Youngstown, O. The school board has asked the superintendent of schools to outline plans for a new school to be erected in the near future.

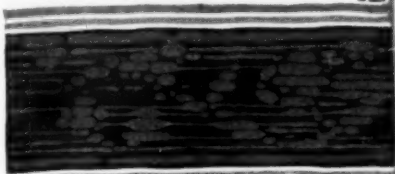
Alliance, O. A contract has been let for the erection of an addition to the Champion Centralized School, at an estimated cost of \$65,000. The building will be completed for use next fall.

Construction work has been begun on the Warren Harding high school at Warren, O. The building will be completed for use next fall. It will be three stories high, with 25 classrooms, a number of special rooms for domestic arts and manual arts work, and an auditorium having a capacity of 1200 persons.

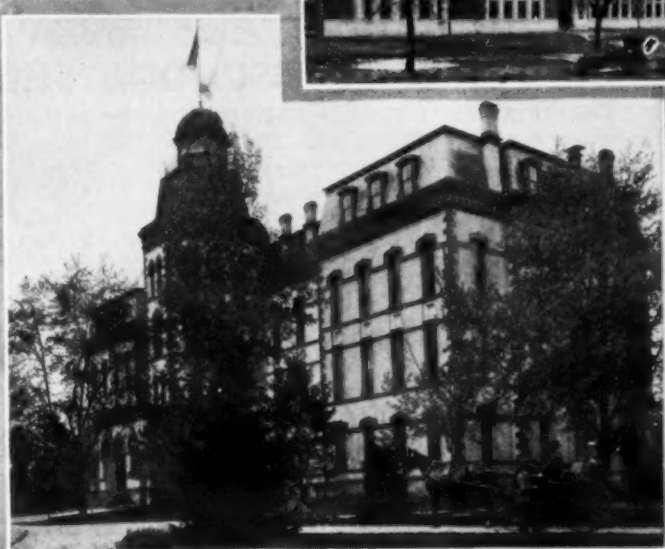
The school board of Canton, O., has named the architects who will plan the buildings under the proposed building program. The program provides for two elementary schools, one junior high school, an administration building and two additions, and involves an expenditure of \$1,800,000.

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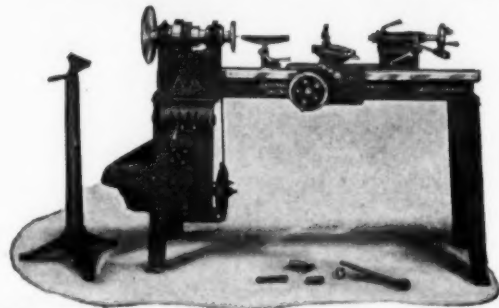
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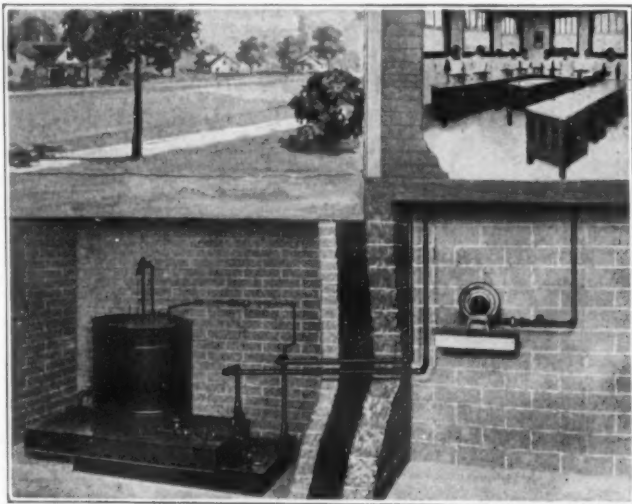
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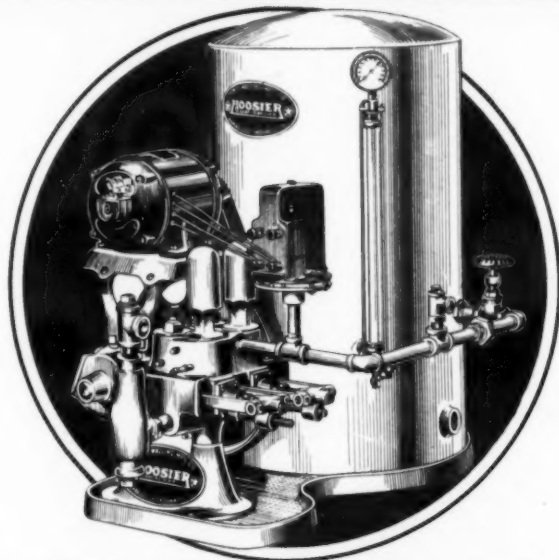


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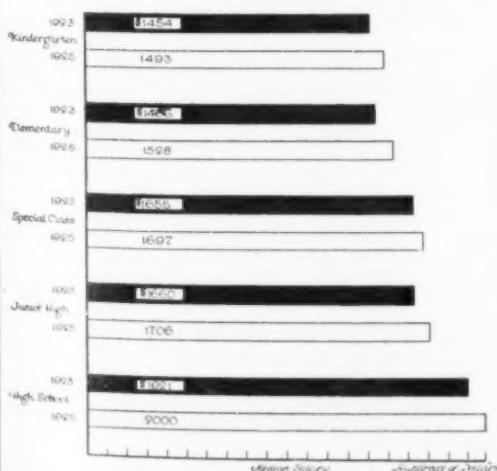


TEACHERS AND ADMINISTRATION

TWO YEARS' PROGRESS IN TEACHERS' SALARIES

"The salaries which a community pays its teachers, determine the quality of teachers who draw them. When a school board member casts a vote for a salary schedule he voted either for poorly trained, partially trained, or well trained children," so says a recent research bulletin of the National Education Association.

MEDIAN SALARIES PAID TEACHERS in 1923
COMPARED WITH THOSE PAID in 1925
(In Cities 30,000 to 100,000 in population)



It then advances the following five reasons for adequate salary schedules:

1. The teachers' salary, in the long run, more than any other factor determines the quality of people attracted to the teaching profession. While the privilege of service is the dominating influence in the lives of the best teachers, society should not rely entirely upon missionary zeal and the appeal to service to maintain its system of education. Large numbers of capable people can be induced to train for any service only when a reasonable degree of economic independence can be guaranteed them.

2. The teachers' salary schedule, more than any other factor determines the quality of preparation of teachers. Teachers may be "born," but the birth-rate at present is far below the demand. Most teachers have to be trained after they are born. Furthermore, even the "born teacher" is a better teacher when trained. Training is an investment. Prospective teachers cannot be expected to invest in from two to four years' training beyond high school unless they have some guarantee that the salary which they will receive is sufficient to justify it.

3. The teachers' salary schedule determines the quality of human material that continues in the profession. A review of *Who's Who in America* shows that a large percentage of the people whose names are listed formerly taught in our public schools. Now they are engaged in other activities. Through their innate ability and persevering labor they have acquired distinction. America lists them as her most honored citizens. One cannot but ponder this question: Isn't this the very kind of innate capacity and endeavor that should be in our classroom moulding our children's outlook on life? For in the last analysis when we buy teaching services we buy the interpretation of life which is daily taught to our children.

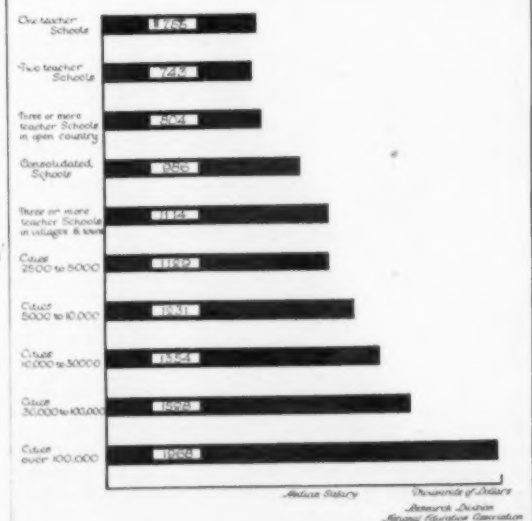
4. The teachers' salary schedule for a particular city largely determines that city's chance in the competitive market when buying teaching services. When one school board fixes the minimum salary for high school teachers at \$1500 and another board sets its minimum at \$1000, the superintendent of schools in the first city

has a better chance in the competitive market of buying better trained and more competent teaching services for the boys and girls of his community, and hence, of making better citizens.

5. The teachers' salary schedule in many instances has not kept pace with the increase in the cost of living. A "nineteen hundred and thirteen" dollar is today worth approximately 58 cents, since the increase in the cost of living is about 72 per cent above the pre-war level. The real value of a wage is not the amount of money received stated in dollars and cents, but its purchasing power. Has there been a "real" increase in the salary schedule for your city in the past ten years?

The chart at the right on this page shows the increase in dollars of the median salary for the various groups of teachers in 158 cities 30,000

MEDIAN SALARIES PAID ELEMENTARY TEACHERS
IN RURAL and URBAN SECTIONS of the UNITED STATES
1924-1925





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to 100,000 in population. These five groups include 46,674 teachers. The increase in the 1925 median salary for every group, as compared with 1923, shows that in cities of this size, teaching services have been given a higher place in the public's scheme of values.

TEACHERS AND ADMINISTRATION

—A University extension course in school information, offering two college credits, has been undertaken by fifty teachers at Mt. Vernon, N. Y. The class meets each Monday afternoon, from four to six o'clock, in the industrial arts school, and is conducted by Dr. R. G. Reynolds. The purpose of the course is to offer training in ways and means of wisely and attractively disseminating school news that should reach the public.

—The school board of Seattle, Wash., has approved a recommendation of Supt. Thomas R. Cole, providing for sabbatical leaves of absence for teachers. Under the plan adopted, a limited number of teachers having completed seven years of service will each year be granted a leave of absence for approved study or travel for a period of one or two semesters. During the period of absence, the teacher is to be paid the difference between her salary and that of a class one substitute teacher. Not more than twenty teachers may be absent on leave at any one time and no teacher may be given a leave of absence oftener than once in seven years. Teachers who accept leaves of absence must agree to return to the school system for the following year's work.

—The \$3,000,000 Simon Guggenheim endowment contemplates support for teachers who desire to avail themselves of the sabbatical year, but who cannot on half salary afford to take it.

—Mary Spry, who has been a teacher for forty years, was honored by the pupils of the Fort Atkinson, Wis., schools with a bronze tablet bearing her portrait and a record of her services.

—Dr. Frederick Bogan, chairman of the Boston school committee, and Supt. Jeremiah E. Burke have asked the legislature for the necessary means to increase the salaries of 4,000 teachers for the next five years. The amount involved is \$1,394,000. The teachers of the Boston schools were unaware of the move made by the school authorities.

—A small sensation has been created at Salem, Mass., by Miss Anna Fessenden, who charges that the school board has appointed teachers who cannot speak the English language correctly. She claims that these teachers are also "uncultivated, undignified, and unmannerly." One teacher expressed herself vigorously. "I fancy that our standard of culture is rather high," she said. "We teachers have a lot of problems in the schoolroom and culture doesn't help to solve our problems. But we do not eat our salad with a knife or use the word 'ain't,' if that is what is meant by culture."

—Miss Lenore Crouse, a teacher at Needham, Mass., received an indefinite leave of absence from Supt. John C. Davis because she inflicted corporal punishment upon 34 children. The punishment was light, but was deemed under the circumstances uncalled for.

—The American College Bureau, a service bureau for schools and teachers, located at Chicago, Ill., has a policy which while self-supporting, yet does not make the bureau commercial in its character or treatment of teachers. In this connection, the Bureau recently sent to teachers placed during the last year, remittances representing a pro rata ten per cent of the commissions paid, which was the actual surplus after all expenses were paid. The Bureau limits its field to colleges and universities and is a real specialist bureau in personnel service. Director Ernest E. Olp has had wide experience in teacher-placement work, is president of the Fisk Teachers' Agency, and also director of education service and the National Teachers' Agency.

—Under a bill introduced in the Wisconsin legislature, school boards of the state would be permitted to employ teachers without a teacher's license, provided they once held such a license. Under the bill, such teachers might be employed where regularly qualified teachers are not obtainable, but the contract may not extend beyond a period of three months in any school year.

—A bill introduced in the Indiana legislature seeks to curb the punishment of school children by teachers and principals. The bill makes it unlawful for any teacher to strike a pupil or to otherwise administer corporal punishment, until notice is given by the parent or guardian.

—Charges that the Syracuse, N. Y., board is

throwing away \$125,000 by adopting the equal pay law without getting an interpretation of the law, have been made by Gilbert I. Vincent, school commissioner. Mr. Vincent holds that the money appropriated might be better spent in maintaining and repairing school buildings.

—Aberdeen, S. D. The school board has modified its rule against married women teachers. Under the new policy, married women may be employed in cases where their service is demanded.

—The New Jersey State Board of Education has approved the tenure-of-office law as it relates to teachers, and has intimated that it will oppose any repeal or extension of the provisions of the law. An amendment has been prepared, seeking to extend the provisions of the law to assistant janitors, district clerks and other school employees.

Pennsylvania Considers Teachers' Tenure Law

A measure now pending in the Pennsylvania legislature means a teachers' tenure law that insures to all teachers of the state practically the same permanence of tenure as that now enjoyed by the teachers of Philadelphia and Pittsburgh under the by-laws adopted voluntarily by their respective school boards. The measure provides that

1. Any teacher now in service or employed hereafter may be put on probation from one to three years, except those now on permanent tenure under rules of the board.

2. Teachers having given satisfactory service during probation must be put on permanent tenure.

3. A teacher on permanent tenure may be placed on probation for one year if superintendent reports his work unsatisfactory. He may then be dismissed by majority vote of entire board, after thirty days' notice and a hearing, if his work continues unsatisfactory.

4. A teacher on permanent tenure may be dismissed for unsatisfactory work, without probation, by two-thirds vote of board; but thirty days' notice must be given and teacher must be given a hearing.

5. Teacher may be transferred or reassigned to different position, but may have a hearing if such change involves reduction of salary.

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CHICAGO, ILLINOIS



An Albert Pick & Company Cafeteria in St. Ignatius College, Chicago. This is an example of a modern cafeteria in an old school building.



The School Cafeteria need not be large or unduly expensive. Service and equipment can easily be simplified to keep costs low—but good equipment is essential and in the long run means lower expenditures for fuel, for labor and for replacement. PIX Cafeteria Equipment is an investment in economy!

Write for our book Y93—"School Cafeterias"

Architect's Service Steps in the Planning and Construction of School Buildings

Superintendent John G. W. Keller of Eau Claire, Wisconsin, has worked out a series of "service steps" for the planning of a new senior-junior high school, which have proven successful in guiding the architect of the building. The outline has also served to clarify in the minds of the members of the school board the successive steps which are taken in the preliminary work connected with the planning of the building, and in the actual work of completing the working plans, specifications, and supervising the construction. The "service steps" are of value to any school board, which has a school building project in hand.

I. A. Cooperate in selection of site to determine type of building.

B. List and extent of school activities to be prepared by Superintendent and submitted to architect with general lay-outs of departments required.

II. Preliminary plans. These are to represent a careful study of:

A. The different features of the all-fireproof building so as to obtain good working arrangements from the administrative and instructional view points.

B. The Operating Equipment. The names and general features of the various systems proposed are to be given with lay-outs.

These plans should contain all desirable features with alternate schemes where several methods are practicable and desirable. (These plans will be reviewed by board, building committee and architect in conference.)

III. Architect's estimate of approximate cost of structure should come well within \$500,000. This report of estimates should appear in sections of the work and then detailed in column form. This permits of the ready footing of various items, especially the alternate scheme items. This will enable the committee to make cost adjustments readily by weighing items comparatively as to cost and merit. (This involves also study of materials, finish, trim, hardware, etc.)

IV. Budget Plan.

Probable date of issue of bonds; also probable dates on which various items of cost of building will need to be met. This schedule should be worked out to articulate with the general building and educational plan as proposed in the original resolution by the board of education, namely: \$660,000.

V. Submit Plans to State Department for Official Approval. These plans are to show:

- A. Brick with stone trim materials:
 - a. Front view of building.
 - b. Perspective of front and side.
 - c. Rear view.

B. Other Suitable Building Materials. Front view only.

C. Unspecified plans for: heating, ventilating units, plumbing and sewage lay-out, electrical distribution and control which includes lighting, power, signal and clocks, fire alarm, telephone (house and city), radio.

VI. Working contracts and specifications. These are the base upon which bids are received and contracts let.

VII. Advertising for and receiving of bids. Approximate periods for performance and days of completion should be set for the various jobs.

VIII. Letting of Contracts.

IX. Building Operation begins.

The superintendent of construction is to be engaged. He is to be a coordinator of operations and an expert on materials, construction and workmanship.

X. Payment days to the architect as indicated in the contract with him should articulate with this schedule and the budget schedule.

The selection of an architect for each individual building to be erected in connection with the Omaha, Neb., school program will probably be the solution of the present controversy. A resolution has been adopted by local associations urging haste in formulating and carrying forward a building program which will eliminate congestion in the schools.

THE NEBRASKA SCHOOL BOARD CONVENTION

The this year's convention of the Nebraska School Board Association, held at Lincoln, was characterized with more than usual enthusiasm, not only because the attendance was large and the program most attractive in subject-matter, but also because there was excellent music and plenty of it. There were high school bands and glee club singing.

The first subject on the program was that of "Religious Instruction in the Public Schools," discussed by Dr. Frank A. Weld. This was followed by a discussion on normal school training informally handled by Archer Burnham of the state superintendent's department; Superintendent O. L. Webb, David City; Superintendent P. A. Adams, Wahoo, and G. C. Chadderdon, school board member of Cambridge.

"What does the Business Man expect of the High School Graduate?" was a formal paper read by Ralph E. Kiplinger, president of the Holdredge board of education. Mr. Kiplinger based his discussion on the results of a questionnaire which he had submitted to bankers, merchants and manufacturers located in the several Nebraska cities.

Mr. W. M. Fraver of Central City, in a discussion of the subject, quoted a number of business men who emphasized the practical studies as against the purely cultural.

"Of all the men examined in the army during the recent war 34.37 per cent were rejected on account of physical defects," said Superintendent R. R. McGee of Columbus. "Pennsylvania had the most, leading the list with 46.47%, Connecticut, 46.3%, South Dakota had the least with 14.13%, with Nebraska next with 20.15%, or in other words, over one-third of all the soldiers examined were rejected on account of physical disabilities, most of which were pre-

ventable had proper measures been taken in time.

"From all available statistics we find that 49 per cent of the country children have teeth defects while only 33.58 per cent of the city children have these defects.

	Country Children	City Children
Tonsils	28.14%	16.49%
Adenoids	23.4	12.5
Eye defects	21.	13.4
Malnutrition	16.6	7.65
Enlarged glands	6.4	2.7
Ear defects	4.78	1.3
Breathing defects	4.2	2.1

"Are there any reasons why the children of the city are more healthy than the children of the country? To my mind, the main reason is not that conditions are necessarily any better in the city than they are in the country, but defects are watched as they appear and corrected by nurses and specialists."

Mr. L. Palmer of the Lincoln board of education informally discussed "Reasonable Economy in School Administration."

The officers elected for the ensuing year were: President, A. H. Waterhouse, superintendent, Fremont; Vice-President, Mrs. Charles Perry, school board member, Harvard; Secretary-Treasurer, H. O. Schaaf, school board member, David City.

Classroom Acoustics

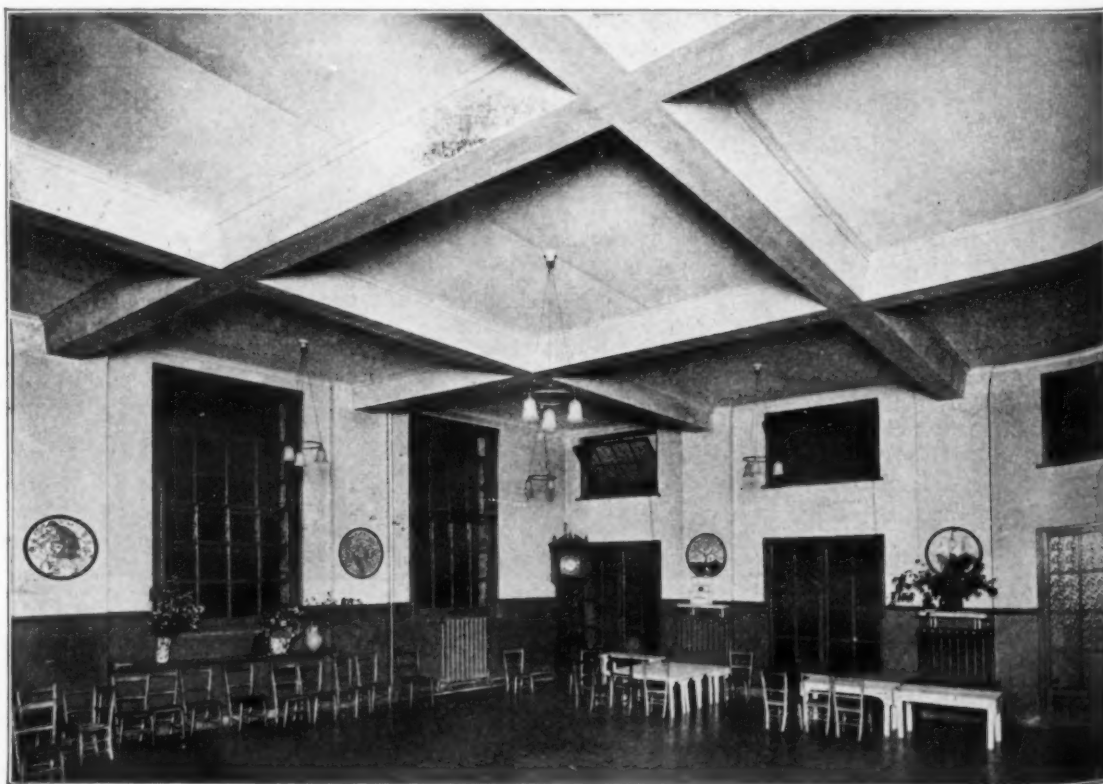
The problem of overcoming reverberation in schoolrooms and school auditoriums is one of the important minor difficulties confronting architects. An English architect, Mr. Hope Bagenal, writing in *The Builder*, London, discusses this problem at length and presents the results of an interesting treatment of the ceilings and walls in a London school building. He writes:

A complaint in the modern hygienic classroom is the long reverberation arising inevitably from the use of hard patent floors and plasters. These materials, admirable for cleanliness, present a hard, smooth surface and act as powerful reflectors able to throw a sound backwards and forwards between opposite surfaces many times before its energy is exhausted. Hence syllables, the units of sound in speech, are prolonged, and undesirable noises such as coughs or scrapes of the foot are magnified. A strain is thus caused on the attention of the children and irritation to the teacher. A quiet room economizes nerves. Reverberation in a room of comparatively small size used for speech of a conversational kind is more annoying than in a large hall, where some prolonging of tones is expected and allowed for.

A large classroom in the nursery school of "The Children's House," in Eagling-road, Bow, designed by Mr. C. Cowles-Voysey, presented an

interesting case. Cleanliness had been the first and very necessary requirement, and it had been fulfilled. The room was smooth, bright and cheerful, and there were no dust traps. The floor was covered with a thick battleship linoleum and the walls and ceilings in plaster had a hard finishing coat. But the reverberation resulting from these conditions caused trouble. A thick carpet on the floor would have absorbed the sound but would also have collected dust. It was decided to place an absorbent on the ceiling in the form of a Cabot's quilt, upon battens screened by a good canvas stretched tight. It was decided to make some rough practical tests before and after the installation of the quilt by means of a portable bellows and three stopped organ pipes of pitch C3 (256), C4 (512) and C5 (1024)). These pipes gave a loudness less than the standard loudness on which Sabine based his calculations and formula. The length of reverberation was measured by ear upon a stopwatch, and the mean of a large number of readings was taken. The tests were carried out at night, and only then in rare intervals of silence. The room in its initial state, windows closed, two persons and three articles of wood furniture present, gave on the pipes the following reverberation:

C3, 6.6 seconds; C4, 5.6 seconds; C5, 4.4 seconds. (Concluded on Page 119)

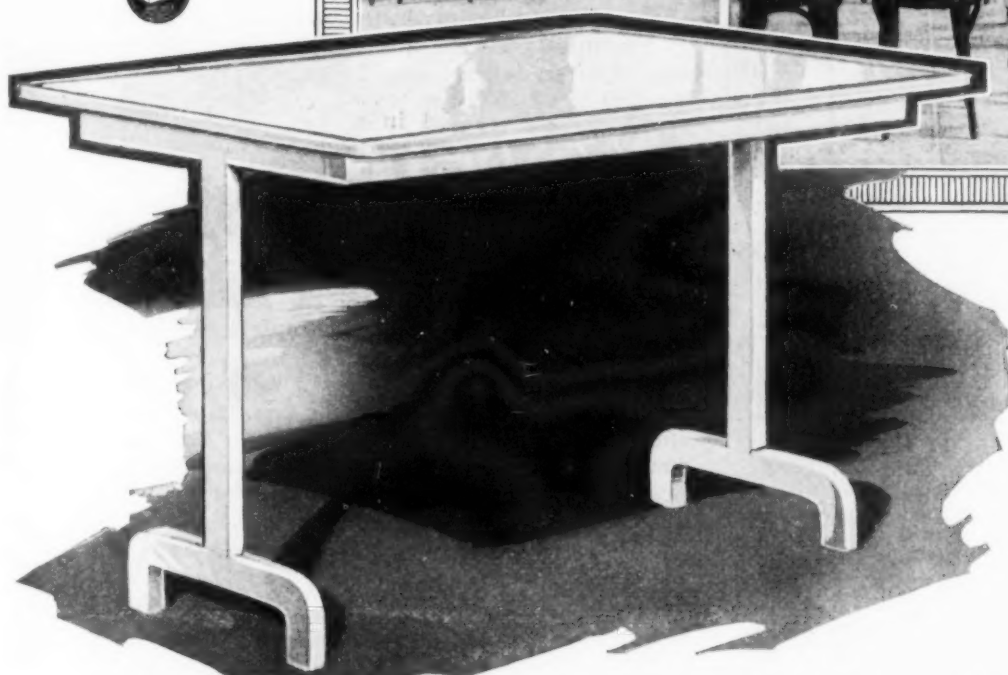


KINDERGARTEN ROOM TREATED WITH DEADENING FELT TO OVERCOME SOUND REVERBERATION.

Note the Raised Rim Feature

The Sani-Onyx table tops shown in the school installation at the right are allequipped with the "raised rim" feature which prevents liquids from spilling on the floor or the children's clothing.

Individualize your school cafeteria with Sani equipment. A Sani installation like the one shown benefits the school children by providing a clean, snow-white, inviting place to eat.



Stands the "gaff" of cafeteria service!

THE real test of school cafeteria equipment is the test of service. Sani food and drink equipment for school cafeterias gives satisfactory service year after year.

Your first cost is the last one. With Sani school cafeteria equipment there is no added upkeep, yet you get a lot of added service, which is true economy in the long run.

Ten years—even a lifetime of scraping trays, spilled liquids, dropped dishes, the scuffing of many feet, the effects of mop and broom, will not change the appearance and serviceability of Sani school cafeteria equipment.

The snowwhite, Sani-Onyx table tops shown above cannot be spoiled or stained by fruit juices or other liquids. Simply wiping with a damp cloth keeps them clean, sparkling white, and inviting. Sani-Onyx counters and Sani metal porcelain enamel table bases cannot be injured by wet brooms and mops and collect no dirt. Cannot rust or rot.

Sani school cafeteria equipment spells long life, sanitation, beauty, lasting economy. More than that—it spells actual profit. Schools everywhere are experiencing economy which comes from a Sani installation. When you buy Sani Onyx tables with Sani Metal bases you are buying equipment especially designed and manufactured to stand up under hard school usage.

We suggest you write to the nearest fixture supply house or this office, for catalog and full information of the Sani line of food and drink equipment. Send us a diagram of your floor space and our plan department will make a blue print layout of a complete school cafeteria installation, free of charge.

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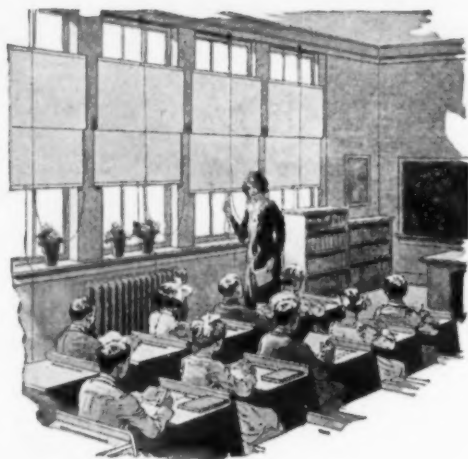
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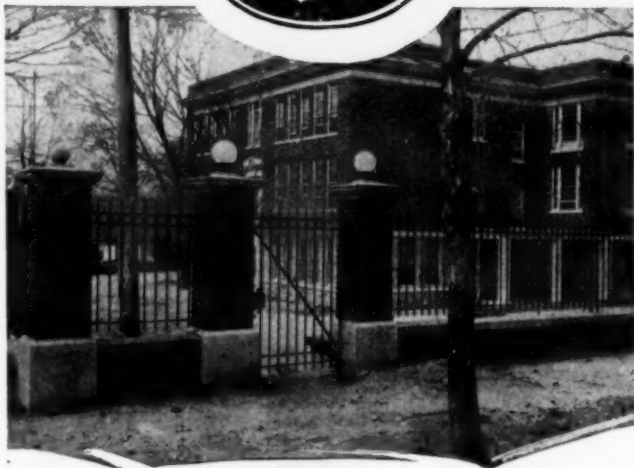


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Stewart-Afco Chain Link Fences have the advantage of somewhat lower cost, yet with a lifetime of service. For playground enclosure the 5 and 7 ft. heights are generally used—often with a special 10 or 12 ft. high section as a backstop for tennis or baseball. For detached athletic field enclosure a 7 ft. barb-wire topped fence is most practical.

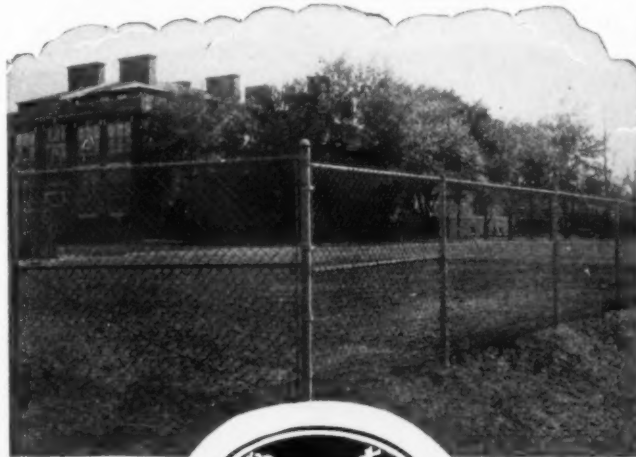
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Use the Rotospeed in the social side of school life—print the programs for school entertainments. It will make beautiful, clear cut-outs, outlines for color cards and posters, patterns for mechanical toys and copies of poems and songs—including the music. In hundreds of ways the Rotospeed will serve your school.



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Almost anything the printer can do for you in the way of school printing you can do for yourself with a Rotospeed—inexpensively, easily and quickly.

Report forms, bulletins, maps, music, letters to parents, programs for entertainments—anything your school may require in the printing line, the Rotospeed will do—to your entire and growing satisfaction.

Rotospeed Fills a Hundred Needs

Rotospeed will be a very definite help to you in your school work. The hundred and one uses to which you can put the Rotospeed will be a constant revelation to you. We have thousands of ideas used by other teachers who have used the Rotospeed Stencil Duplicator to widen the scope of their work in school. Your Rotospeed will make your school work very much more effective. And you will wonder how you ever got along without this time-economizing, money-saving machine.

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The Rotospeed Stencil Duplicator is simplicity itself in construction, swift and easy to operate. No type or cuts used. You can have illustrations if you wish. The printing is done with a stencil, prepared in a few minutes with typewriter or in longhand. And you can draw, rule or trace on the stencil as easily as on tissue paper.

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We want you to know the Rotospeed by actual test in your school. We want to send you the machine completely equipped for 10 days' trial. And we will send with it a portfolio of ideas sure to be of practical use in your own school. Use it—test it out in any way best suited to your special needs. Use it as though it were your own. Watch pupil and parent interest in what your school is doing grow by leaps and bounds. Then—at the end of this 10 days most exacting and comprehensive trial—if you wish to keep the Rotospeed, send us the price, \$53.50. If you do not want the machine, simply return it—with no feeling of obligation, whatever. But act now—do not put it off. Avail yourself of this most unusual offer at once.

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Please send me at once full details of your Free Trial Offer and show me how I can widen the scope of my school work with a Rotospeed. It is understood I am not obligated.
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(Concluded from Page 116)

It was decided to place first one layer of the Cabot quilt on the ceiling, and if that was found, upon testing, to be insufficient, to add a second layer. The single layer reduced the reverberation to: C3, 1.3 seconds; C4, 1.3 seconds; C5, 1.1 seconds.

The change was noticeable immediately on entering the room. Conversation which had been difficult was rendered easy, and it was decided that a second layer of the quilt was unnecessary. The reduction for C4 (ordinary speaking voice pitch) was from 5.6 seconds to 1.1 seconds. The canvas screen covering the quilt was distemped with a thin coat. An oil paint on the canvas would have caused it to act as a slight reflector for high notes and would thus have minimized the absorbing power of the quilt.

It is interesting to compare these results with the theoretical calculations based upon Sabine's formula, which were made from the drawings and from approximate coefficients of absorption. The volume of the room was 14,100 cu. ft., the plaster on the walls and ceiling was taken at 0.017 (or 1.7 per cent.) absorbing. The glass was taken in with the plaster; the linoleum floor was taken at 0.03 (or 3 per cent) absorbing. Allowing for two persons present at 4.7 per person, Sabine's figure (two were required to make the practical tests and should therefore be allowed for), the reverberation for C4 from the

formula $t = \frac{V}{A}$ — was found to be 7.4 seconds

for the room in its initial state. This calculated figure, 7.4 seconds, is longer than that actually found on the pipes for C4 (namely, 5.6 seconds), but the pipes, as already noted, were less than the standard loudness, and the "threshold," or point of silence, was difficult to detect accurately in the practical experiment. With fifteen persons present—a normal class—the calculations showed 4.5 seconds. At the ordinary speed of sound this would mean that a noise of a scrape of the foot traversed the room backwards and forwards some eighty times before its energy was absorbed. But at the same time the room would be right for choral music. Upon further calculations the result of introducing 1,116 sq. ft. of quilt sufficient to cover the ceiling was found to be a reduction from 7.4 seconds

to 1 second. This was taking the quilt at a coefficient of 0.5 (or 50 per cent) absorbing—a figure well on the safe side for a single layer of the material. The effect of this reduction on choral music would be to deaden and reduce tone.

An illustration is given of the ceiling completed. The quilt is more efficient if laid with an air space behind it. It consists of eel grass in a brown paper envelope, and has the advantage of being moth-proof. It is slightly resonant and appears to reinforce tones at certain pitches. This has advantages and disadvantages. There is an advantage in treating the ceiling instead of the floor owing to the fact that the ceiling presents the greatest surface at a wide angle to the speaker. This makes it more efficient either as a reflector to increase sound or as an absorber to reduce sound. In the case of the classroom the ceiling is not required as a reflector and may therefore be rendered absorbent. The following comments upon the room under the new conditions are given by some of the teachers in a letter from the secretary. "The nursery school superintendent tells me that previously the children could not hear her speaking to them a few yards away, and it was quite impossible to make anyone hear on the other side of the room. This is now all right. There is still a slight echo. The effect on singing is slightly deadening."

"Another worker who has a group of about fifty children in the schoolroom on Sundays tells me that there is no echo now. The singing is perhaps not quite so good—one cannot make the place ring as previously—but one cannot have things both ways."

OKLAHOMA'S SCHOOL FINANCE TROUBLES

In Oklahoma, 1361 schools must close their doors long before the end of the regular school term unless the legislature appropriates \$500,000 for their support. Guy A. Curry of Stigler, Oklahoma, in discussing the situation says:

"There are only fifteen counties in the state with enough money to give every school therein, an eight or nine months' term. From every part of the state come reports of inadequate funds, shortened terms, under-paid and under-trained teachers. The 15 mill tax levy has been a failure."

The chief causes for the state embarrassment, Mr. Curry holds, are the following:

- "(1) A defective system of taxation.
- "(2) A system of school finance which makes it absolutely impossible to provide adequate funds.
- "(3) An unscientific method of apportioning the state funds which ignores both the ability and the effort of the local units.

"Taking as a measure of ability the estimated true wealth of the state per child of school age, Oklahoma ranks twelfth in the United States with respect to her ability per child to provide school revenue, and thirtieth as to her expenditure or effort.

"The state auditor's report shows that considering the percentage of costs of the three general classes or branches of our state government, general, corrective and educational, with comparisons for the year 1922, 1923 and 1924, the educational branch decreased in cost from 34.8% of the total in 1922 to 31% in 1923 and to 28% in 1924, making a grand total decrease for the three years of 6.8%—while the cost of the general government branch increased from 33.1% in 1922 to 40.3% in 1923 and to 45% in 1924, a total increase of 11.9%. In 1923 the schools in the state of Ohio received 45.42% of the tax raised, or an increase of 17% in five years.

"So much for the delinquency of the state as such, yet the fault, the failure, the cause of the breaking down of our system of financing education lies in greater part in the system itself.

KEWANEE'S PHILANTHROPIST

A \$400,000 gift made by Emerit E. Baker, president of the Kewanee Boiler Company has come to the city of Kewanee, Illinois. The earnings from this fund, which are expected to be from \$25,000 to \$30,000 each year, are to be used in aid of worthy Kewanee boys seeking an education, for crippled children and for the improvement of local parks. Mr. Baker is the president of the Illinois Crippled Children's Society. The magnificent gift is not the result of any sudden impulse but is a part of a program of liberality toward the home community which has been developing for several years. Mr. Baker gave \$50,000 for park purposes and pledged \$5,000 each year which is now a conditional part of the larger gift.



**A typical installation
of free standing**

WEI STEEL
TRADEMARK
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**combination shower and
dressing room compartments**

Now being generally used in the most modern School Buildings. Built from 16-gauge, (1-16 inch thick) copper bearing furniture steel with electrically welded joints, they meet most exacting demands for utility and long life. Write at once for catalog.

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CHICAGO'S LARGE SCHOOL BUDGET

The budget adopted by the Chicago board of education for 1925, runs up to \$65,560,266, which is nearly \$8,000,000 more than the budget for 1924.

The increase is accounted for principally by an addition to the building fund revenue of \$5,450,000 and a \$2,087,000 increase in the educational appropriations to meet salaries for new teachers and provide for automatic increases in pay.

To meet the estimated expenditures \$53,989,000 is available in revenue and \$6,866,821 surplus unexpended in 1924. This leaves the board with a deficit for 1925 of \$4,003,426 and brings the total deficit to \$19,140,000.

The new salary increases proposed for the teaching force are not included in the budget estimates and should such a program be adopted another \$2,000,000 would be added to expenditures and place the deficit for the year at \$6,000,000.

The largest single item in the budget is for teachers' salaries, which is put at \$31,244,000, as against \$29,468,000 for 1924. The total expenditures for educational purposes are placed at \$40,789,000, which is \$2,225,000 greater than in 1924.

For building purposes there is available this year \$22,711,000, as against \$17,261,000 for last year. There is a decrease in the appropriations for school playgrounds of \$13,336, the amount set up for 1925 totaling \$632,000. Appropriations for teachers' pensions are fixed at \$610,000, a gain of \$39,374 over 1924.

SCHOOL BOARDS VERSUS CITY COUNCILS

Samuel Ach, president of the Cincinnati, Ohio, board of education, recently read a paper prepared by Dr. John M. Withrow, in which the subject of financial independence was discussed as follows:

"One of the outstanding problems in American education, is the relation of the board of education and the public schools to the municipality of which they are a part. There are many who hold the theory that public education is properly one department of the municipal organization, on an equality so far as city government is concerned with the police and fire department. This theory implies that the mayor of the city

council, or some municipal commission to whom this power is delegated, shall act upon the budget presented by the board of education, determine the amount which shall be apportioned for the public schools and levy the necessary tax along with the other city taxes.

"The opposite theory, repeatedly upheld by the courts, is that public education is distinctly a state function; that the state should delegate to the board of education the power to determine its own budget and to levy a sufficient tax, having regard only for state limitations as to the tax rate. In this report, we have classified all boards in three groups. Independent, dependent and special. Those that are no way limited by local city government but which determine the amount of their budget and levy their own tax are "independent." Such boards may be either elected by the people or appointed by the mayor or other officials. It is likewise possible that the tax which they levy may be certified to the regular city officials and collected along with the other city taxes. Boards which are really a subdivision of the municipal government and whose budget may be changed by municipal authority are "dependent."

ILLINOIS SCHOOL PROGRESS

—The State Educational Department of Illinois has issued a report dealing with general educational statistics for the past year. The report shows there are a total of 1,924,470 children of school age in the state, with 70 per cent of the minors of school age. The total enrollment in elementary schools was 1,098,298, or 83.4 per cent of the total and representing a gain of 1.1 per cent over 1923. In the high schools, the total enrollment was 217,740, or 16.6 per cent of the total and representing a gain of 1.6 over 1923. The per cent of school age enrollment in public schools was 68, that in elementary and secondary schools was 11, making a total of 79 per cent in all elementary and secondary schools.

According to the report, there were a total of 199,817,649 days of attendance in the state, and an average attendance of 1,092,489. The average cost per pupil enrolled, for all expenses, was \$69.80, while the average cost for all expense was \$85.51.

There are 31,172 teachers in the state having a varied teaching experience ranging from one year to forty years or more, the larger number being found in the group having from one to ten years' experience. Again, there are 42,865 teachers grouped according to length of service in the same district. The larger number of teachers are found in the group having from one to six years' experience in the same district, while more than 4,000 have taught twenty years or more.

In the elementary schools, 282 men and 2,044 women received salaries ranging from \$1,000 to \$1,099; 153 men and 1,499 women received salaries ranging from \$1,100 to \$1,199; 147 men and 1,443 women received salaries ranging from \$1,200 to \$1,299; 266 men and 212 women received salaries of \$3,000 or over.

In the secondary schools nineteen men and 79 women received salaries ranging from \$1,000 to \$1,099; 28 men and 138 women received salaries ranging from \$1,100 to \$1,199; 58 men and 272 women received salaries ranging from \$1,200 to \$1,299; 87 men and 620 women received salaries ranging from \$1,300 to \$1,399; 115 men and 617 women received salaries ranging from \$1,400 to \$1,499; 194 men and 681 women received salaries ranging from \$1,500 to \$1,599, and 799 men and 809 women received salaries of \$3,000 and over.

SCHOOL BUSINESS OFFICIALS' MEETING

The National Association of School Business Officials will hold its annual meeting May 19-22, at Kansas City, Mo. Headquarters for the meeting will be at the Hotel Baltimore.

The railroads have allowed a one and one-half fare for the round trip on the certificate plan. Tickets at the normal, one-way tariff fare for the going journey will be allowed. A reduced fare for the return journey is contingent on an attendance of 250 persons and upon the presentation of the certificate to the endorsing officer, Mr. John S. Mount, secretary of the association. Return tickets at a reduced fare are not good on limited trains on which such reduced fare is not honored.

Information concerning railroad rates, hotels, etc., may be obtained by writing to Mr. John S. Mount, railway secretary, State House, Trenton, N. J.



Sturtevant Underfeed Stokers installed in the
Springfield Junior High School,
Springfield, Mass.

[McClintock & Craig,
Eng. & Arch.,
Springfield, Mass.]

Reduce Heating Costs!

How to reduce heating costs and yet maintain a uniform temperature in the schoolhouse is a problem which many school board officials are solving by installing Sturtevant Stokers.

Sturtevant Stokers are particularly adapted to schoolhouse operation and are built to meet the most exacting requirements.

In residential sections, where schoolhouses are usually located, strict smoke ordinances generally prevail. Schoolhouses are therefore compelled to burn expensive fuels in order to eliminate the smoke nuisance.

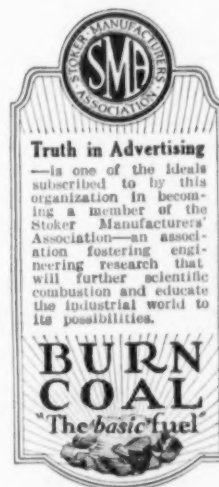
With Sturtevant Stokers low priced fuels may be burned and excellent re-

sults obtained without violating smoke ordinances.

The smokeless operation of these stokers is a great advantage in vicinities where only soft coal is available for fuel, because with the elimination of the smoke nuisance the exterior appearance of the school building is improved.

Sturtevant Stokers are an excellent investment for schoolhouses. They keep operating and maintenance costs at a minimum. These stokers are applicable to any type of boiler and may be driven by steam engine, turbine or motor.

We will be glad to give you further information on request.



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"If Superintendents and School Boards knew how a noiseless heating system aids in teaching, all schools soon would be Dunhamized."

DEVELOPING A PROGRAM FOR CONTINUOUS SCHOOL PUBLICITY

(Concluded from Page 36.)

principal is responsible for the news from his building. The supervisors are also responsible for articles devoted to changes in methods and courses of study in which they are particularly interested. The weekly school page in the newspaper is in charge of pupils and teachers from two junior and one senior high schools. Reporters make the rounds of the schools and the superintendent's office at regular intervals. They are also invited to confer with supervisors of special subjects.

Conclusions. 1. Continuous school publicity is necessary if the citizens are to be kept informed concerning their schools. 2. The individual in charge of publicity should make definite plans for several months in advance, using what aids he can secure such as a publicity calendar and scrap-books of clippings or suggestions from previous years. 3. The amount of school publicity can be increased greatly in most cities. 4. Schools have means of obtaining publicity in addition to that furnished by newspapers. 5. Some kind of organization should be effected for making the scheme a success.

SERVICE OF EDUCATIONAL RESEARCH TO SCHOOL ADMINISTRATORS

(Continued from Page 39.)

greatest good from the inquiry, in the writer's judgment will not be immediate. Nor will it consist only of things on which one can put a finger. This is written despite the facts that the list of such specifically valuable things is lengthy and that practically all states will soon have various similar studies, now that the pioneer work on the methods of study is available. This good lies rather in certain somewhat intangible and deferred values such as changed

points of view of both educators and laymen and in the training of school administrators.

"The volumes will undoubtedly stimulate a wholesome type of thinking about school finance which has never been possible before because the factual basis has not been at hand in any such comprehensive body of material. There will probably follow a series of discussions in the public press as well as in the technical journals.' As a result educators and teachers generally will acquire a better understanding of the complexity of the problems involved in financing education, a keener sympathy with the taxpayers, and a surer realization that many of the difficulties of educational finance arise from the need of general tax reform which cannot possibly be secured for some time."

This statement by Professor Alexander is significant for what it does not include as well as for the positive assertions. He does not claim that the investigation yielded conclusive and permanent answers to questions relative to how our schools should be financed or how school moneys should be expended. He does not suggest that superintendents will find in the volumes specific directions for financing their school systems. Unlike the research enthusiasts which were quoted earlier, he does not claim that the investigation will lessen the cost of running our schools. He explicitly minimizes the objective tangible results and emphasizes those which are perhaps intangible but in his judgment are the most important.

The Bureau of Educational Research at the University of Illinois, has carried on a number of investigations, some of them requiring the collection and statistical treatment of large groups of facts. In some cases the facts col-

²Alexander, Carter. "The work of the Educational Finance Inquiry," Teachers College Record, 25:212-22, May, 1924.

lected have failed to yield an answer to the question studied; in others the findings have been very meager. If judged on the basis of these results only, one might conclude that our efforts have yielded decidedly unsatisfactory dividends and that, therefore, the expenditures involved have not been justified. It is clear, however, to those who have directed the work that there have been other contributions. We ourselves, have attained a more thorough understanding of the problems studied and have been stimulated to clearer thinking about them. Furthermore, we believe that the published records will have a somewhat similar effect upon those who read them. It is in this way that such investigations as those we carry on may be expected to make what is, perhaps, their most important contributions.

A Wholesome Tendency

Educational research represents a wholesome and progressive tendency to question traditional practice and to depart from theorizing about questions which arise. Although this phase of our study of education is very recent, it has already rendered much service to our schools by the collection and organization of facts, but it is doubtful if educational research has or will greatly lessen our educational expenditures. On the other hand, it has undoubtedly tended to increase our efficiency in educating boys and girls and, as we approach more nearly to valid and conclusive answers to the questions which confront us, we may expect to become still more efficient as educators. However, in order to be truly scientific we must recognize that the collection and statistical treatment of facts is not a substitute for thinking, and that this phase of educational research cannot be expected to answer all questions. Our study

(Concluded on Page 125.)



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With the enormous fuel saving of from 15 to 35 per cent per year which The Johnson System Of Temperature And Humidity Control so successfully accomplishes in schools, it is more easily possible for the school board to remain within the school maintenance budget. That forceful fact alone is enough reason to install The Johnson System: *this year.*

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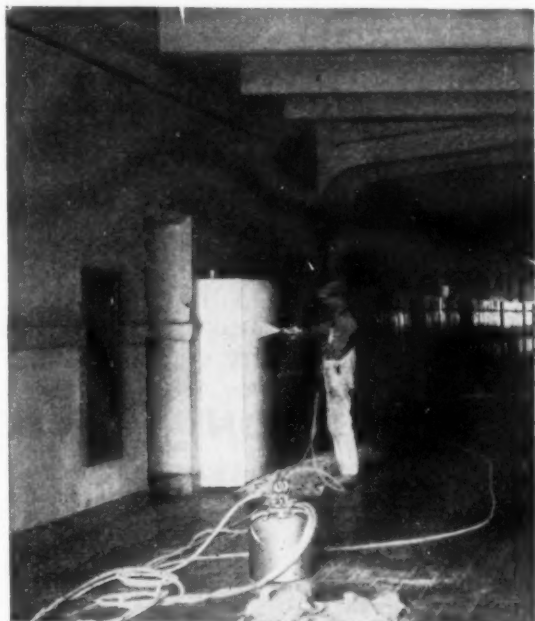
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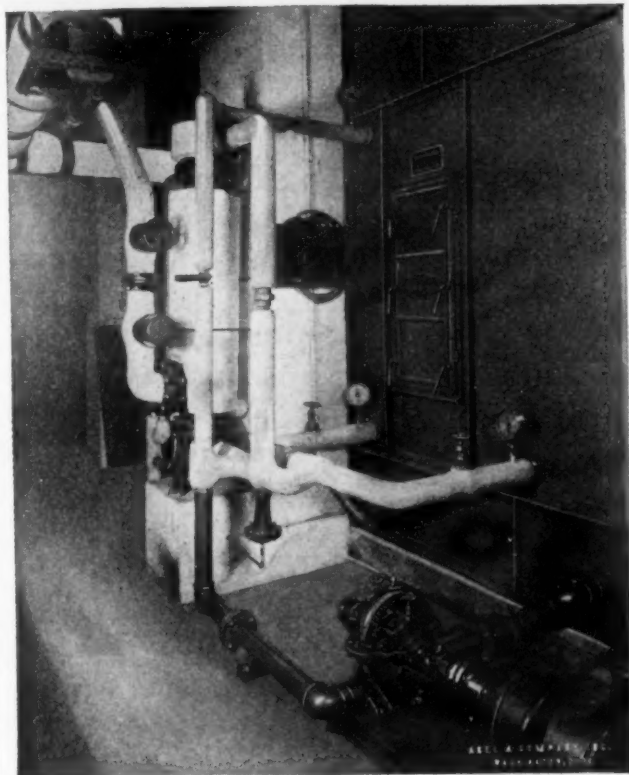
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(Concluded from Page 122)

of some problems must be based partially or even wholly upon principles and theories derived from psychology, sociology, philosophy, and ethics, but the true research worker will be duly critical of such data and will not consider his conclusions more valid than is justifiable. Educational research will probably render its greatest service through promoting clearer and more critical thinking about educational problems. This service will apply not only to the study of those problems which are based upon objective facts but also to the study of problems for which it is necessary to introduce other types of data.

THE CINCINNATI MEETING

(Concluded from Page 54)

Not so many years ago an "Exhibit of School Work" meant a collection of scores and scores of laborious papers on grammar, algebra, physiology—all down the tiresome line. How many formal papers were exhibited in the beautiful contributions by various schools at Cincinnati? *Beauty and happiness* were the notes struck by those exhibits. And are those pupils less proficient in arithmetic and the other tools they will need in life, simply because they acquire their knowledge in an artistic and happy atmosphere?

In the old-time school the little girl who made a "pretty" out of colored paper soon rued it. If she allowed her imagination to roam she was brought back to hard realities with a bang. Last week we considered it a great privilege to listen to the "Gospel of Beauty" as presented by one of America's noted sculptors.

On another afternoon we witnessed the "Processional of The Spirit of Beauty and Happiness in Public Schools." The coming of Light (knowledge), of Joy in many forms, of Service through many channels, passed in review. How

many eyes, in that vast audience, were undimmed when Tiny Tim and his crutch crossed the stage? Or when he returned, holding the hand of a Red Cross nurse?

The school man or woman who did not "Hear America Singing" as he or she came out of the music hall that afternoon, missed one of the "enduring satisfactions" of the week.

But, in the last analysis, this Beauty and Happiness was offered not for ourselves, but for the sake of the millions of children who come under our influence. Time was, not so long ago, when the schoolhouse was a building, a shelter, pure and simple. The teacher was employed for what he knew about Greek, or the multiplication table, with no thought of his knowledge of children. He mapped out a course of study or a program; formulated a hard and fast set of rules; devised a series of punishments; then compelled the child to fit himself into the conditions as best he could. How any child escaped being warped, body, mind and soul, is a mystery.

In the Cincinnati program *The Child* was the first, not the last consideration.

THE PROPOSED CHICAGO SALARY SCHEDULE

(Concluded from Page 56.)

time. Such a policy must seriously impair the service. The number of teachers reported at various times as clerking in stores, selling insurance, etc., indicates the need of saving this energy for the public.

The teacher's expenses, of course, continue through the year. The main reason why teachers have so long been underpaid is one discredit to the community, viz: that the missionary spirit, the desire to serve the general good, the affection for and interest in children, a voluntary and commendable offering by teachers,

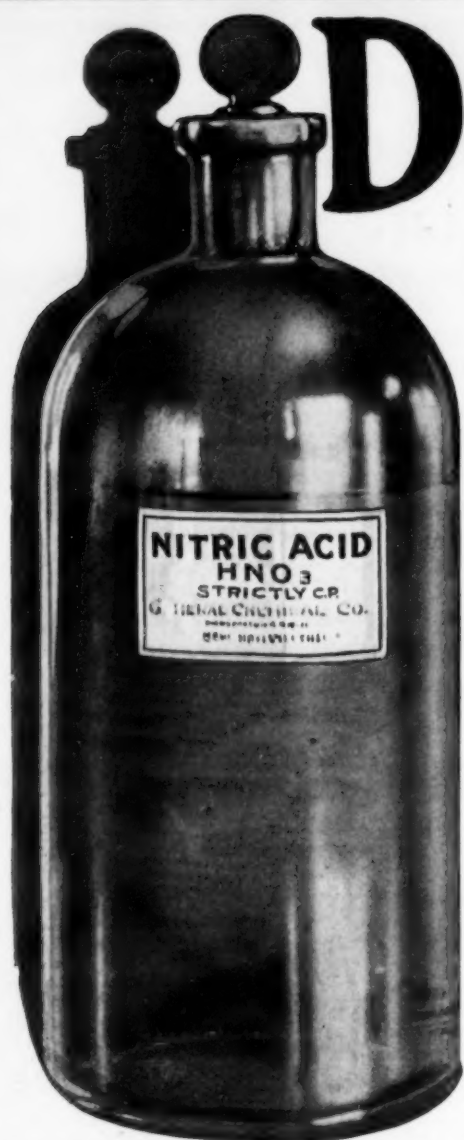
has been taken as a right by the management, even in years of remarkable prosperity. The stable tenure of teaching positions in Chicago must be considered as having a financial value. The long vacations are also regarded. The very modest pension system has weight also. These things have been considered in the schedules here proposed. The fundamental basis of these salaries is that which keeps the teacher in condition to render the best service. The wages are not for the teacher, but for the public."

WASHINGTON CORRESPONDENCE

(Continued from Page 65.)

schools for Indians and Eskimos in the territory. Mr. Jonathan H. Wagner is now chief of the Alaskan Division with headquarters in Seattle, Washington. He is a trained school man, formerly serving as superintendent of public instruction of New Mexico. For the first time since the Alaskan school system for natives was organized, a comprehensive and satisfactory course of study has been adopted. It will be printed during the coming year and put into operation at the beginning of the next school year. The course follows as far as possible the best of the state and city courses with particular adaptations to conditions in Alaska. While not neglecting general education, it emphasizes industrial education and physical education, the great needs of the native population of Alaska being to acquire skill in trades by which they may earn their living, to fit themselves to supply the needs of their community for trained service and good citizenship, and to improve their physical and health status through the development of hygienic living.

It must be remembered that the Alaskan school fills a unique place in the Alaskan native community. It is the center of the community life, it is a school and an educational center; it



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is also a medical center and the center of every civic and social activity. The domestic science course is the bread-making course for all homes in the community. The trades taught in the school are taught alike to children and adults in every phase of life. Leadership in the life of the community depends upon the teacher.

An admirable thing in regard to the course of study is that though it gives daily programs, time distribution tables, and other phases of the ordinary school course, it is arranged to be flexible and easily adapted to individual local conditions. These conditions, it will be appreciated, vary greatly when it is remembered that schools in Alaska are as far apart as schools in Maine, Minnesota, California, and Georgia.

Legislation for the District of Columbia

For the schools in the District of Columbia, several important pieces of legislation were enacted. Congress passed the compulsory school attendance and school census bill outlined in the February SCHOOL BOARD JOURNAL, and the five-year school building program in the same issue. It passed legislation recognizing the surplus in the United States Treasury as belonging to the District of Columbia, and made that surplus available for schools, parks and playgrounds. It passed the largest appropriation bill for the District ever passed, which includes larger appropriations for schools than have heretofore been made.

The Compulsory Education Bill

The compulsory school attendance and school census bill provides that children from 7 to 16 years of age shall be required to attend school, except that a child who has reached the age of 14 years and has completed the eighth grade, may be excused from school if regularly employed.

The bill also provides for a census of all children between the ages of 3 and 18 years, mak-

ing it possible to enforce the school attendance law, and also permitting school officials to prepare adequately for increased enrollment.

In order that this legislation may be put into effect, Congress made an appropriation of \$3,200 for the salary of a director for the department of school attendance and work permits; \$8,400 for six census inspectors; \$7,020 for six clerical employees in the new department; and \$3,000 for office equipment, and office supplies.

The Five-Year Building Program

The five-year building program authorized appropriations for elementary schools, junior high schools and senior high schools, sufficient in number that by June 30, 1930, the schoolhouse accommodations in Washington will be sufficient to accommodate adequately all pupils now enrolled and an increased enrollment anticipated during the five-year period.

Fifteen new elementary school buildings are provided as well as additions to 28 existing structures. This does not include combined assembly halls and gymnasiums authorized to be built at eight elementary schools.

Provisions are made for the purchase of seven sites for future use, in addition to land needed for school buildings to be erected during the five-year period, and also for enlargement of playground facilities at 28 elementary schools.

To put the building program in operation, appropriations are carried in the regular appropriation act for 1926 and in the second deficiency bill making available the so-called "surplus." The first carries a total for building and grounds to the amount of \$1,545,000.

The second deficiency bill carries an appropriation of \$2,631,000. The public schools of the District of Columbia will have available during the present year for building purposes \$4,176,500.

Annual Report of Commissioner of Education

The Annual Report of the United States Commissioner of Education has just come from the press. It summarizes the activities of the Bureau during the past year in a 32-page document. This, it will be remembered, is supplemented by a large number of bulletins and statistical reports appearing from time to time.

A National Committee on Secondary Education

The need for a national leadership in the development of secondary education has been brought home in various ways recently to the United States Bureau of Education, resulting in a cooperative movement for a scientific study of the subject. This is to be carried out under a national committee whose function shall be to initiate, direct, and coordinate research in secondary education under the general direction of the Federal Bureau. The committee will consist of one representative of each of a number of cooperative organizations, each concerned with secondary education, and additional members appointed by the United States Commissioner of Education, in order that the committee shall include men of recognized leadership of specific phases in this subject.

The basis of the committee is a national committee of ten men formed by the Bureau of Education in the interests of the small high school. This is being extended into the large committee outlined above. The personnel of the present committee, as far as members have been already appointed is as follows:

Dr. Emory N. Ferriss, Professor of Secondary Education, Cornell University. Chairman of the Bureau of Education Committee on the Small High School.

Dr. W. A. Smithey, Professor of Secondary Education, University of Virginia.

Mr. W. L. Spencer, Supervisor of Secondary Education, Alabama.

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Heatavent, unit system of heating and ventilating, is the outstanding choice for school installation.

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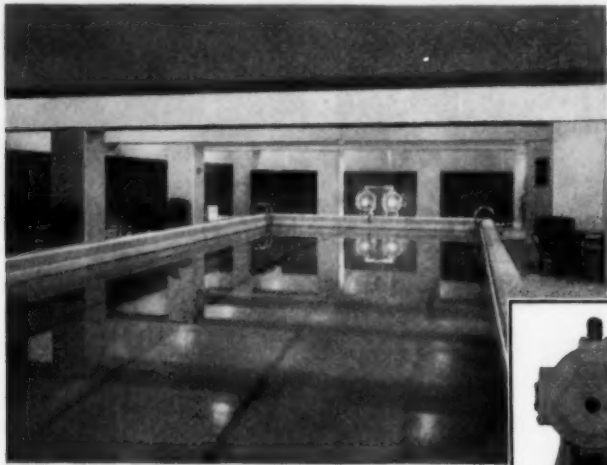
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To complete the lure of white tile and sparkling blue water, the water itself should be really refreshing. To use a sterilizer that fills the water with biting germicidal chemicals often spoils the "feel" of the water. Such chemicals attack all organic matter—the tender tissues of the bathers' bodies as well as the bacteria in the water.

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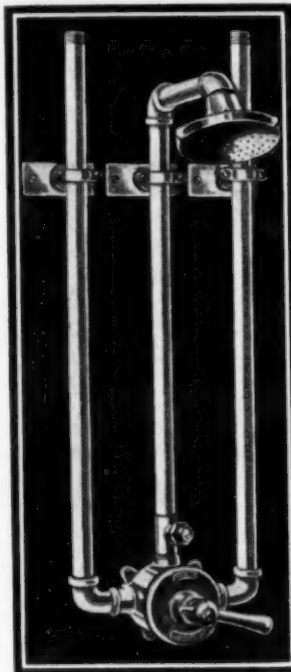
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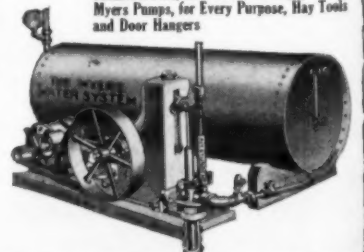
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FORECASTING SCHOOL POPULATION

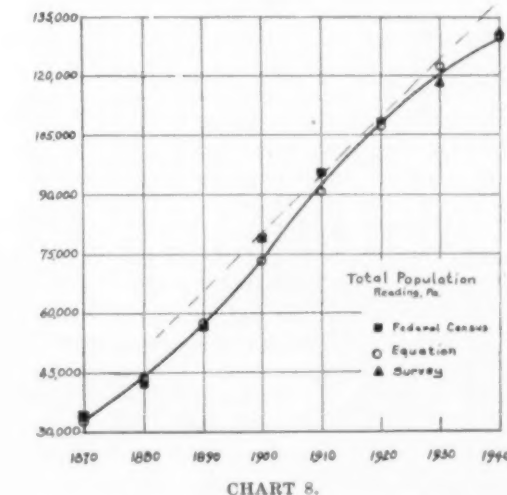
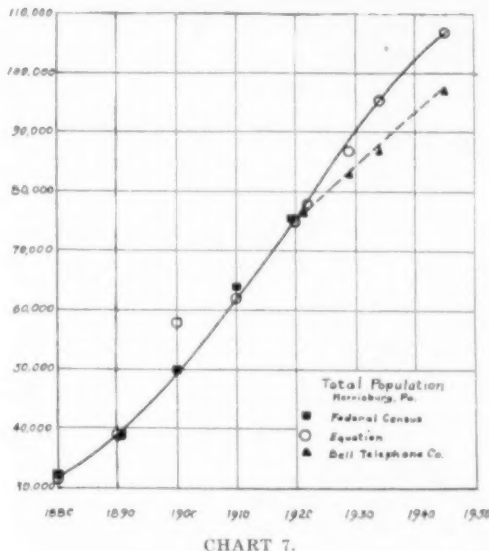
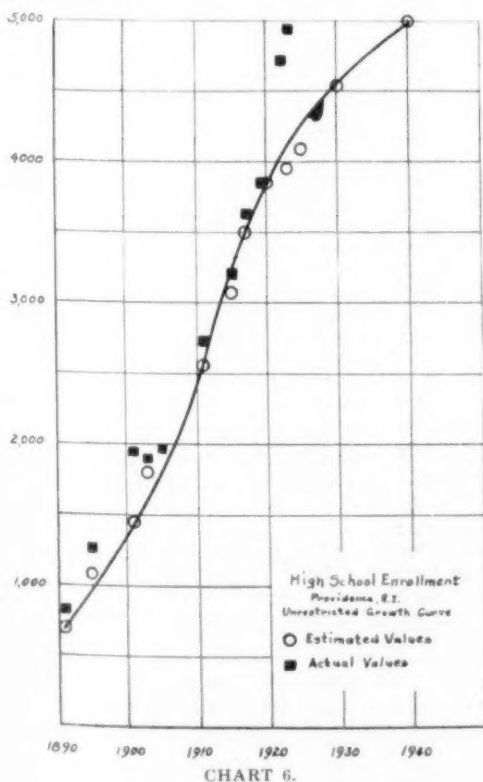
(Continued from Page 50.)

ment for the city of Providence does not give comparable results. The high school population forecasts should be made in terms of the percentage relationship between high school enrollment and total population.

Case 2. Reading, Pa.

Chart 7 and Table XVI show the contrast between the school population forecasts made in the Reading, Pa., School Building Survey,⁴ and

⁴"School Building Survey," Board of School Directors, Reading, Pa.



the results secured by applying the mathematical technique.

TABLE XVI
Total Population, Reading, Pa., Observed and Estimated

Year	Observed Federal Census	Survey	Estimated From Equation
1870	33,930		32,540
1880	42,278		44,420
1890	58,661		58,900
1900	78,961		74,820
1910	90,067		91,460
1920	107,784		107,300
1930		119,200	122,200
1940		133,350	132,800

The chart shows that the forecasts made by the mathematical method checks rather closely with the survey estimates. The average percentage relationship between estimated population and the actual enrollment for the ten years prior to 1920 was determined. This average per cent was then applied to the total estimated population for 1930 and 1940.

Table XVII shows the resulting enrollments as determined for those years.

TABLE XVII
Estimated Enrollment Public Schools, Reading, Pa.

Year	Survey	Mathematical Method
1930	19,100	18,820
1940	21,250	20,450

TABLE XVIII
Total Population, Estimated and Observed, Harrisburg, Pa.

Year	Observed Federal Census	Estimated From Equation	Estimated From Bell Telephone Co.
1880	30,762	30,690	
1890	39,385	39,510	
1900	50,167	58,070	
1910	64,186	62,310	
1920	75,917	75,880	
1922		78,710	77,554
1928		87,390	84,040
1934		95,770	88,677
1945		107,100	98,240

⁵Harrisburg Survey. Published by Board of School Directors, 1923.

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THE heating of your school has a vital part to play in assuring the health, comfort and standing in studies of your school children. And the yearly cost of operation is a substantial part of your school tax budget. A competent architect and a reliable heating contractor are the "cooks" on whom you can depend for a satisfactory result, provided you let them use the best "ingredients."

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The provision of a satisfactory Heating of getting the best experience in design, securing a Consulting Heating Engineer the equipment used. We recommend only in the larger type of schools.

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Ventilation Problem, Too

Knowles Mushroom Ventilator Co.

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SEND FOR BLUEPRINT OF OUR GALLERY RISER VENT

A comparison of the enrollment of the city of Harrisburg as made by the survey staff and those made by this mathematical method are shown in the following table. These enrollments are based on the estimated total population for these years.

Year	Actual	Mathematical Estimates	Survey Estimates
1922	13,048	12,500	12,500
1928	14,750	14,285
1934	15,320	15,000
1945	17,130	16,700

Case 4. St. Joseph, Mo.

In applying the mathematical technique to the city of St. Joseph, Mo., the curve as shown on Chart 9 is derived. The comparison of the actual observed Federal Census figures and the estimated census figures are shown in Table XX. The advantage of a mathematical technique is quite apparent for this chart. With an error in the Federal Census as was made in 1900 the mathematical analysis gives the approximate census for that year. It also affords a basis upon which the superintendent could have checked his program, in view of the error in the federal census and the actual conditions.

TABLE XX
Total Population, St. Louis, Mo., Actual and Estimated Values

Year	Census	Estimated Basis
1870	19,505	17,940
1880	32,431	32,900
1890	52,324	50,360
1900	102,979	64,570
1910	77,403	73,140
1920	77,939	77,400
1930	79,180
1940	80,200

The Use of Mathematical Methods for Forecasting Population

Any mathematical technique used for forecasting population should be used with discretion. There are always dangers in thinking that just because a solution is mathematical that it is correct. It is more difficult to find gross errors in a mathematical solution of this prob-

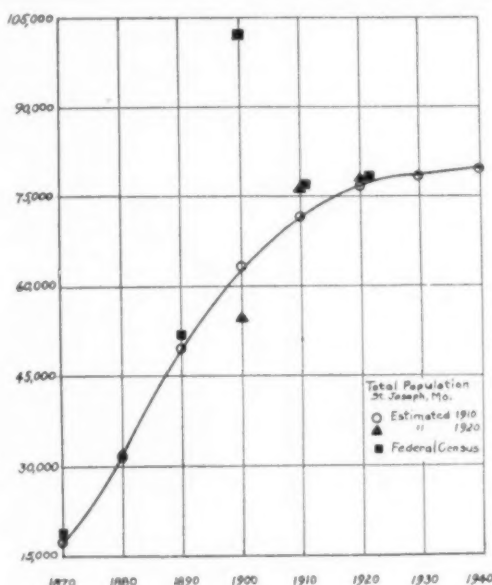


CHART 9.

lem than in the use of a solution of the "Bell" type, where a continuous survey makes it possible to check the results from time to time. Mathematical solutions can only be applied to population facts available for a relatively long period of time, and cannot take into account populations accrued through additional land areas or modifications in census enumerations.

In spite of these shortcomings, however, the mathematical solution has definite advantages. It provides a means for estimating the population for inter-censal years and to check the relative accuracy of census data. A mathematical solution is readily applied and if carefully used provides a convenient tool for attacking this most difficult problem from a different angle. With the improvement in accuracy and reliability of school records a further development of

the mathematical analysis of the problem may be made possible.

THE DEPARTMENT OF SUPERINTENDENCE

(Concluded from Page 53.)

few notable exceptions, these surveys have been limited to public school systems, and beyond doubt have resulted in an improvement of public education. And there is little reason to doubt that the public would be equally benefitted by similar surveys of all higher institutions. It is time that the clouds which have hidden Olympus and obscured the action of the gods should be cleared away. If they are really gods they can only be made glorious by the fierce white light of publicity.

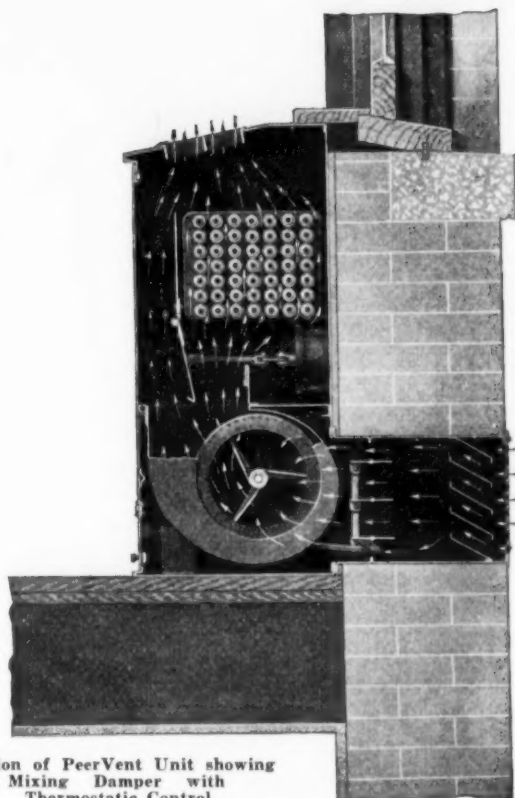
What can the colleges do for the schools? They can assure the open door of opportunity by the provision of higher training for a much better, wider variety of mental endowment and by rationalizing entrance requirements and their application; by giving a square deal to freshmen, by providing expert teaching through a proper recognition of teaching for professorial advancement; by the supervision and correlation of college courses such as will free them from professorial caprice and make them in subject and content a part of a well-rounded system of education leading to definite objectives suitable for the perpetuity of a democratic state; and lastly by the recognition of all higher educational institutions, whether endowed or state supported, as public institutions, whose operations are legitimately subject to revise in the form of a survey by properly authorized and adequately qualified representatives of the public interest.

The Wonderful Entertainments

On Thursday afternoon and evening the Association forgot the discussion of professional problems and allowed itself to genuinely enjoy two concerts and a pageant, the equivalent of which have not been seen at N. E. A. gatherings. In the afternoon Supt. Ellis U. Graff of Indianapolis headed a chorus of 200 teachers who presented a series of songs, ranging from the Indiana state song "On the Banks of the Wabash," to Schubert's classic Serenade. For quality and feeling it would be difficult to equal

(Concluded on Page 133)

Another PEERLESS Achievement



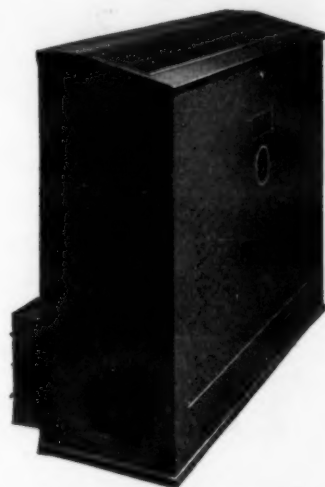
Section of PeerVent Unit showing
Mixing Damper with
Thermostatic Control

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Only 36 inches high; does not interfere with windows or obstruct light. Only 14 inches deep; minimum obstruction in aisle next to windows. Equipped with Peerfin radiator, the most efficient ever developed for ventilating units, manufactured in our own factory, subject to rigid inspections and tests. Has all advantages of older types of Peerless Units. Independent service for each room. Thorough ventilation without drafts. Noiseless operation. Adaptable to all steam systems. Easy to operate. Always in working order. Big cost and space savings. Easy to install. No remodeling required for old buildings.

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PeerVent Heating and Ventilating
Unit



PeerVent Unit with front removed,
showing fans, motor, and
mixing damper



PeerVent Unit with front and
mixing damper removed,
showing Peerfin Radiator

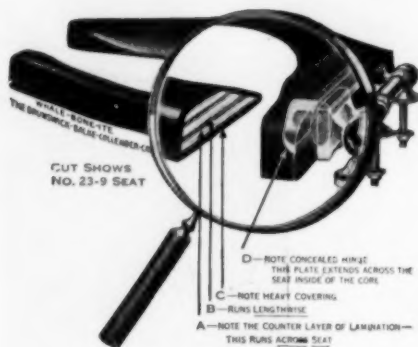
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ROCHESTER, N. Y., 511 Duffy-Powers Building
CHICAGO, 808 Monadnock Building

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WHALE-BONE-ITE
 CLOSET SEATS



The Seat of no Apologies

For over ten years Whale-Bone-It has demonstrated its superiority and leadership as a quality product—the standard of comparison.

Created and exploited by the same organization who are continually producing improvements both in product and the making, same not readily seen, but nevertheless there to assist in maintaining those words “unqualifiedly guaranteed.”

A lot of so-called **new** constructions, hinge attachings were discarded as inefficient by us six, seven and eight years ago, but readily forgotten by some. We just mention this at this time that experience costs money—the question being yours—or the other fellows.

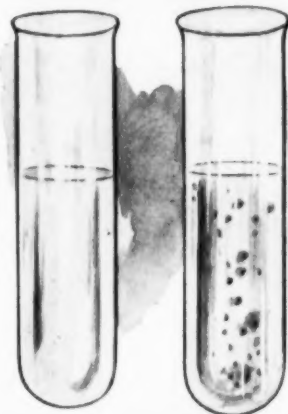
THINK IT OVER.

First cost — Last cost.

Types for all makes of bowls. If you cannot secure locally, write the Seat Department of

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REX PINE



*The LIQUID
SCRUB SOAP*

*Dissolves
Completely!*

THE ABOVE simple test illustrates the superiority of Rex Pine Liquid Scrub Soap over paste or jelly soap. Rex Pine dissolves completely the instant it is put in water and there are absolutely no lumps or residue remaining. This undissolved matter in paste or jelly soap gets into the cracks and crevices and causes discoloration and rancid or foul odors. Rex Pine eliminates this odor completely for there is nothing left undissolved. It contains pine oil which has a very pleasing pine woods odor. This is the ideal scrub soap for schools and institutions. It is not expensive.

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The HUNTINGTON LABORATORIES, Inc.
 HUNTINGTON, INDIANA



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 Represents the Greatest Advance Made in
 Drinking Fountain Construction.*

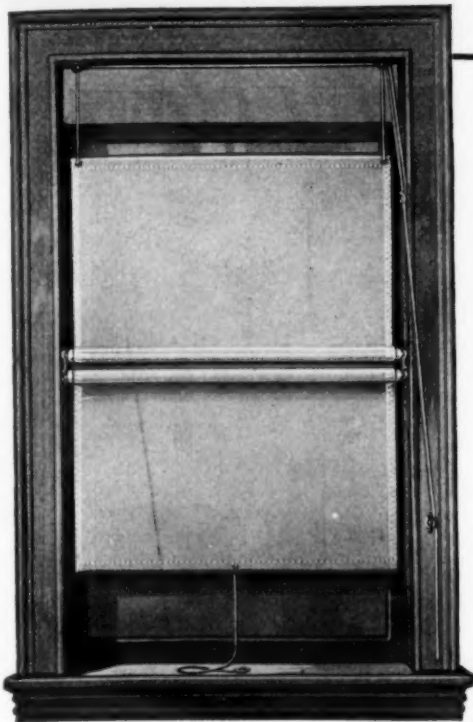
*This Fountain Was Designed Especially for Use
 in Schools.*

All Puro Fountains are made of solid bronze cast metal from heavily designed patterns. No breakage possible. Nothing to crack, chip or become unsightly. An installation once made will last a lifetime. Puro Fountains are highly finished, and heavily nickel plated. They are always clean and inviting and do not require the continual care of enameled goods.

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Window Shades of Every Description Made to Order

The AIRANLITE Double Roll Shade

MOUNTED ON PATENTED BRACKETS
IS THE PERFECT SCHOOL SHADE.

It gives a correct and scientific diffusion of light and permits window ventilation.

It is easy to adjust and cannot get out of order—is strong and durable—good looking and well made.

AIRANLITE Double Roll Shades can be made of any standard shade cloth or of canvas.

For school shades our special woven tan colored canvas is recommended.

The Patented Adjustable Light Stop does away with streaks of light between rollers and the patented brackets hold shades in perfect alignment, giving the appearance on the outside, of being one continuous shade.



For Long and Satisfactory Service Use AIRANLITE DOUBLE ROLL SHADES

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They Increase the Efficiency and Improve the Health of Teachers and Pupils.

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Users of double roll shades are cautioned against infringements and imitations, as the AIRANLITE Patented Double Roll Shade is fully protected by U. S. Patents.

Be sure you get AIRANLITE Double Roll Shades mounted on AIRANLITE Patented Brackets.

(Concluded from Page 130)

this splendid chorus. The concert was followed by a processional, representing the joys of childhood as expressed in the work of the Cincinnati schools. In the evening a massed chorus of 600 voices, including members of the various glee clubs in the Cincinnati high schools, presented a series of songs, illustrating the influence of the school on the happiness of the nation. Lorado Taft, the sculptor, spoke on beauty as a factor in life.

The Business Meeting

The Department of Superintendence believes in facilitating its business, and consequently its members avoid speech-making and debates and time-consuming bickerings over small matters. Superintendents have ample experience in attending meetings of school boards to know how futile speech making and random argument are likely to be in settling major problems and policies. The work of the Department was very quickly disposed of. The Curriculum Commission was continued, and the results of the election and the resolutions were promptly accepted. The officers elected are as follows: President, Frank W. Ballou, Superintendent of Schools, Washington, D. C.; First Vice-President ex-officio, Wm. McAndrew, Superintendent of Schools, Chicago, Illinois; Second Vice-President, E. E. Lewis, Superintendent of Schools, Flint, Michigan; member of the Executive Committee, Norman R. Crozier, Assistant Superintendent of Schools, Dallas, Texas. Mr. S. D. Shankland continues as Executive Secretary of the Department.

The resolutions declared the thanks of the Department for the splendid hospitality of the citizens of Cincinnati and of the local school authorities who helped to make the convention a success.

Among other things, the resolutions rejoiced at the legislation which the Washington city schools have secured for improving the school system. The traditional and stupid practice of ridiculing by cartoons and other humor, the fine women who constitute a large majority of the teachers was deplored and condemned. The necessity of adopting budgets as a means of estimating annual school needs and apportioning school revenues was heartily recommended. The position that school boards should be in inde-

pendent and complete control of their finances was reaffirmed. The child labor amendment was supported.

Other Organizations

The Department of Elementary School Principals held during the week a number of exceptionally interesting programs. The principals of large elementary schools are assuming an increasingly important place in the management of city schools and are developing a professional class consciousness which is no less attractive and commendable than that of the superintendents. Thus, on Tuesday afternoon the elementary principals discussed salary schedules in a way that showed that they are keenly alive to the importance of this difficult problem. On Wednesday afternoon they took up supervisory problems in no less interesting and professional way than any of the meetings of the Department of Superintendence.

The National Association of Secondary School Principals held a number of important and constructive meetings, but the group was considerably smaller than the superintendents or the elementary principals.

The Department of Rural Education held a series of practical meetings that reflected the growth of the rural schools.

Individual Instruction

The National Society for the Scientific Study of Education has during the past three or four years held programs which have attracted universal attention on the part of the superintendents. On Tuesday evening the Society discussed the problems of individualizing instruction, that was perhaps the most interesting from the standpoint of objective scientific study of education. Supt. Carlton W. Washburne introduced to the gathering the results of the study which has been carried on during the past year under the general title of "Adapting the Schools to Individual Differences." Mr. Washburne discussed in brief the results of an experiment which has been conducted in Winnetka in grouping children and in providing individual instruction to overcome individual differences.

"In the face of these differences," Mr. Washburne asserted, "the absurdity of expecting all the children in a class to achieve the same degree of knowledge and skill from the same assignment, with the same time allotment, has

become evident. Consequently there has been a general movement toward adapting schools and school methods to the individual differences among children."

A great amount of interest has been shown in an investigation of these methods but a more drastic modification of the traditional procedure is needed. A number of experiments in individual instruction "vary all the way from coaching the laggards or individual dividing children into ability groups, to much individual self-instruction." The schools which have gone the farthest in individualizing their work have contributed the most to our statistical knowledge of individual instruction."

A. J. Stoddard, Superintendent of Schools, Bronxville, New York, declared the weakness of pupils by the class method were not revealed to the parents except periodically, when the report cards were sent home. He said the individual method of instruction, was far less comforting to the student, who realizes constantly what progress he is making.

"The problem of leading pupils and parents to see that keeping their children together in classes in their work is the highest degree of inefficiency, and then to get them to support a program that attempts to have each pupil master his work as he goes along as far as he is able, is no small one."

The individual method of teaching exposes poor teaching and brings the faults into bold relief. "It causes the teacher to plan her work in larger units and necessitates initiative, alertness in meeting new problems, and conciseness in her teaching," he concluded.

The movement of the greater individualism and individualization of instruction will be spread, Professor William H. Kilpatrick, of Teachers College, Columbia University, predicted. However, classroom work always will be retained. Certain subjects, he explained, as geography and history, are best learned in connection with group discussions. Professor Kilpatrick said that the Winnetka plan of individual instruction was open to two criticisms, serious objections. It carries its mechanized work too far, including some subject matter that properly cannot be mechanized, he said, and added that it unduly separates the individual learning from its place of application. He

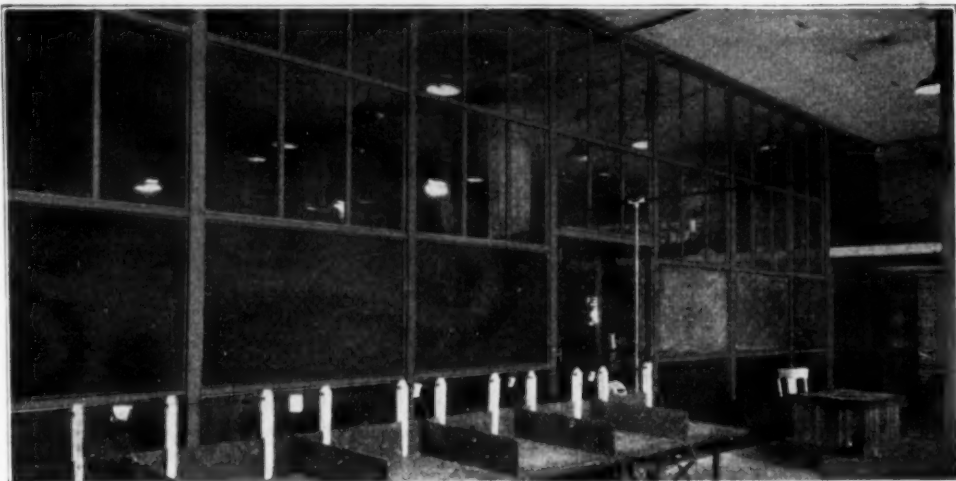
Unit Plan of Construction



Partitions

installed in
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Higginbotham,
Architects



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asserted that such learning tends to break life into separate compartments, a practice almost sure to be harmful.

The Exhibits

The exhibits at the Department of Superintendence are growing annually as the professional schoolmen are increasingly appreciating the need of keeping in touch with the improved books, equipment, apparatus, teaching aids, etc., which the American manufacturers and publishers are offering the schools. Upwards of 160 firms occupied the booths in two large halls flanking the Cincinnati Music Hall, and their displays were given an added professional background by an extensive school art exhibit. It was remarked that the superintendents and principals present had come to learn and were amply repaid for their efforts.

Mr. William B. Ittner, architect, St. Louis, showed an extensive photographic exhibit of school buildings erected during the past five years. Garber & Woodward, Cincinnati, Holmes-Powers Co., Lansing, Mich., and Childs & Smith, Chicago, also displayed plans and pictures of their recent school work.

INASMUCH AS YE HAVE DONE IT UNTO THE LEAST OF THESE

(Concluded from Page 44)

location on the school ground in mind at every moment during recess periods.

It might be a little expense added to the ordinary upkeep of the school to construct a fence or some sort of barrier in the above situation. But I am of the opinion it would be more cheerfully spent thus than expended by the parents for doctor bills and funeral expenses.—F. Y. Harper.

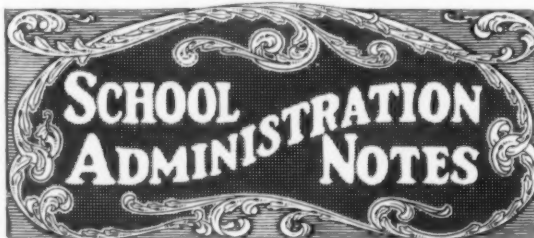
TEACHERS' CONVENTIONS AND SCHOOL CLOSING

—The New Bedford, Mass., board of education has refused to close the schools in order to enable the teacher to attend the convention of the Bristol County teachers' association. The contention is that there are less than 200 school days out of 365, and that the teachers are given three months vacation every year and teach but five days a week in the working months, with various holidays eliminated from that service.

The school days that are available should be cherished and guarded from further invasion.

The New Bedford Mercury in defending the action of the school board says: "We are paying for the most highly trained, selective service that is available, and if the teachers feel they cannot give it without the benefit of a convention one day in the year, it is their business to arrange such a meeting and attend it on one of the free days at their disposal, of which there are so many. The school board should hold the teachers to the standard and it is the duty of the teacher to qualify himself."

Clarence E. Howell, President of the Bristol County teachers' association resents the imputation made by the newspapers that wrong motives had actuated its request for the closing of the schools. He says: "In presenting our request, our judgment was reinforced by the action of school committees in the county in the past, by all of the other county school committees of the state, and by the very distinct trend all over the nation toward the active co-operation of school committees with teachers' associations in professional work of this type. Surely this gave us ample reason to feel that perhaps the local committee could be brought to see the matter as these others do. Perhaps we failed because we did not present it so that our motive and reasons were made clear, but we at least resent the imputation of wrong motives."



—Failure of a child in school to make progress is not always an indication that he lacks intelligence, but often is due to some other consideration, according to Mr. Herman M. Adler, of the criminology division of the Illinois department of public welfare. Outlining the results of tests conducted in juvenile research, Mr.

Adler said that since mental science has been introduced in the schools, many cases have been discovered in which educational and social failure appear to be due not to an intelligence defect, but to some other consideration. He pointed out that it is not sufficient to discover the children who suffer from the effects of such discrepancies, but it is the duty of the schools to offer proper remedies for them. These are:

1. Removal of all discrepancies possible either by treatment of the individual, or changes in the environment.

2. Strengthening of inhibitions, self-control, ambition and esthetic taste through suitable practice.

3. Providing suitable outlets through construction activities for such special abilities as the child possesses.

—The high school enrollment for the state of Missouri increased 115 per cent from 1913 to 1923, and the grade school enrollment 126 per cent in the same period, according to Dr. A. G. Capps, of the University of Missouri, speaking recently before the State School Administration Association. He believes that education in Missouri faces a financial crisis due to the large gap between the estimated school needs and the visible revenue that is allotted to them.

It is pointed out that educational expenditures for elementary and secondary schools in the state in 1913 amounted to \$16,000,000, whereas, in 1923, they were \$42,300,000. This represents an increase of 154 per cent.

The reasons for the increase, according to Dr. Capps, are the increase in school attendance, the increase in the number of high schools, the increase in the number of teachers, and a broadened curriculum. The increase in attendance, it is pointed out, has been greater than the increase in population.

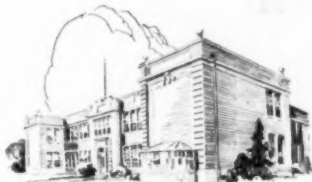
—The School Superintendents' Research Club of Indiana held its annual meeting on February 4th, at Lafayette. At the opening session such topics as reorganization of the state board, school finances, accounting, attendance and other phases of administration were discussed. A business session was held the following day, with addresses on medical inspection, athletics, and recent educational legislation.

(Continued on Page 137.)



Bloomington High School
Bloomington, Illinois

Architect:
A. L. Pillsbury
Plumber:
Ross Johnson



Centralia High School
Centralia, Illinois

Architect:
A. L. Pillsbury
Plumber:
Fowler Brothers



Garden High School
Garden, Illinois

Architect:
A. L. Pillsbury
Plumber:
Walsh & Slattery

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Since 1878*



Boys' Toilet

West Ward School
Wabash, Ind.

Plumber:
Hitskind Heating & Plumbing Co.



East Aurora High School
Aurora, Illinois

Architect:
J. C. Llewellyn
Plumber:
N. R. Zack Co.



Deerfield Shields High School
Highland Park, Illinois

Architect:
J. C. Llewellyn
Plumber:
E. Baggot Company



El Paso High School
El Paso, Illinois

Architect:
A. L. Pillsbury
Plumber:
Walsh & Slattery

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Nowhere is plumbing subjected to more severe usage than in the school. In spite of this fact, sanitation must be constantly and perfectly maintained and health preserved. In addition, low repair, replacement, operating and water costs are essential.

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For example: Clow equipment is put through

the Clow "set-up" test before it is shipped. The various fixtures are set up, just as they will be in the actual installation, and are tested to assure that they are in perfect working order.

As a result, every piece of equipment that bears the name Clow is of known and assured quality. There are no rejections on the job, and there are no high fitting, repairing, replacing or operating costs on the installation.

Leading architects recognize this and prefer Clow for all exacting Plumbing jobs in their public building work.

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The Murdock Outdoor Bubble Font is more than a Drinking Fountain — it is a water supply system. Inside the rugged pedestal is an all brass construction, to furnish safe and wholesome water.

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For

SCHOOL YARDS — PLAYGROUNDS

Write for Booklet "What An Outdoor Drinking Fountain Should Be"

Also Indoor Drinking Fountains and the Murdock Patent Bubbler Head for School Buildings.

The MURDOCK MFG. & SUPPLY COMPANY
427 Plum Street, Cincinnati, Ohio

MAKERS OF OUTDOOR WATER DEVICES SINCE 1853

Use the Norton Liquid Door Closer with Hold-Open Arms and do away with door stop on bottom of door.



WHY Is The NORTON Closer With Hold-Open Arms the Best Suited for Schoolhouse Work?

1st. The doors are closed with a uniform speed, which gives the pupils a chance to go through a door without getting caught or injured.

2nd. Having two speeds, the speed at the latch can be set for

absolute quiet—no latch necessary.

3rd. The Hold-Open Device connected with the arm of the Door Closer is automatic, a child can operate it—just a push or pull on the door is all there is to do it. Does away with door stop, hook or strap to hold the door open.

Every school-room should have one.

Service:—We have expert service-men on call, free of charge.

Price:—The price is right. Send for a representative.

THE NORTON DOOR CLOSER CO.

2900-2918 N. Western Avenue,
Chicago, Illinois.

Bradley Washfountains

PROMOTE BOTH
CLEANLINESS AND
SANITATION
REQUIRE BUT A
MINIMUM OF
JANITOR SERVICE

"The First Cost is the Last Cost"



Hughes High School
Cincinnati, O.

Bradley Washfountains represent a great advance in modern washroom equipment. They promote both cleanliness and sanitation, are self cleaning and require but a minimum of janitor service.

And Bradley Washfountains are most economical. Their use reduces the number of fixtures required. They save floor space, use less water, and permit the use of fresh tempered water at all times.

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Milwaukee Wisconsin

A FEW RECENT INSTALLATIONS

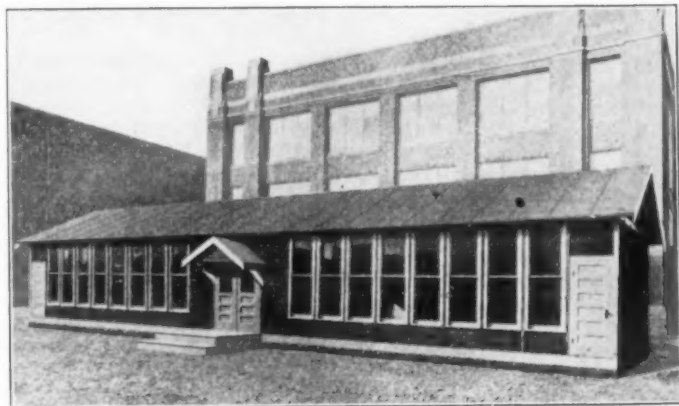
Crane Technical High School,
Tilden High School,
Schurz High School,
Austin High School,
Morgan Park School,
Chicago, Ill.
Garvey School,
Los Angeles, Calif.
Theodore Junior and Senior
High School,
Amsterdam, N. Y.

Marquette University,
Shorewood Grade School,
Continuation School,
Milwaukee, Wis.
Fortuna Grade School,
Fortuna, Calif.
Washington Ave. High
School,
Canton, Ohio
High School,
Green Bay, Wis.

Fond du Lac High School,
Fond du Lac, Wis.
High School,
Stevens Point, Wis.
South Omaha High School,
South Omaha, Nebr.
High School,
Janesville, Wis.
Woodland Union High School,
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AND MANY MORE.

THE RELIABLE M & M PORTABLE SCHOOLS



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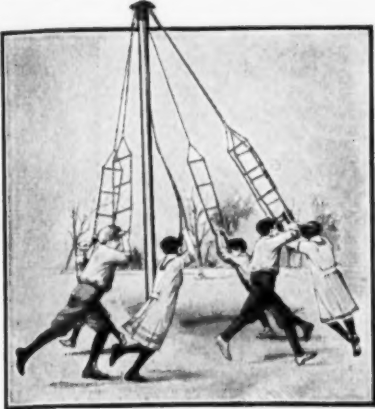
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Your janitor with four common laborers and our illustrated instructions can erect them.

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THE BEST—

Specify
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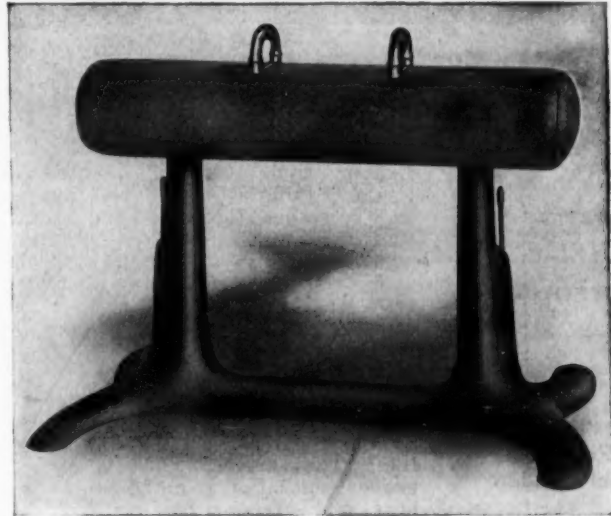
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(Continued from Page 134.)

—Binghamton, N. Y. Supt. Daniel J. Kelly has prepared a report showing that out of a registration of 11,590, there are 3,324 pupils on part time, or 28.68 per cent. Of this number, 1,876 are in the high school where all classes are on part time, and 1,448 are in elementary schools.

—Hammonton, N. J. The school board has issued an order prohibiting use of a language other than English in and about school buildings. The edict makes an exception of classroom studies of a foreign language. The reason for the order was a report that foreign-born pupils addressed uncomplimentary remarks to teachers in a foreign language.

—A survey of the school plant of Lima, O., was begun in April. The survey is intended to furnish information helpful to the board in estimating the actual school population and in determining the trend of population and proper locations for school sites. The survey experts will make a study of centers of population, enrollment and traveling distance of schools, location of school buildings, and amount of incoming population.

—The state textbook commission of Arkansas is not bound by an agreement to contract with certain publishers, and the lower courts erred in making a ruling to the contrary, according to a recent decision of the Supreme Court in the two cases of *McRae v. Farquhar* and *Albrecht Company* appealed from the Pulaski Chancery and Pulaski Circuit Courts. The case from the Circuit Court was an appeal by the state on a mandamus compelling the textbook commission to carry out a contract with the publishers for a writing text. The case from the Chancery Court was an appeal of an injunction forbidding the textbook commission to contract with any publisher other than Farquhar and Albrecht Company for a writing text.

—The term of the county superintendent of schools in Indiana would be increased from six to eight years, under a proposed bill introduced in the state legislature by Senator C. S. Steele. The new bill is an echo of the recent defeat of the county unit bill and is a measure of protection to county superintendents who are in danger of losing their positions because of having favored the former bill. It appears that the superintendents are chosen by the township

trustees, who conducted an active lobby against the county bill, and would be in position to exercise their rights in the case of those superintendents whose terms expire this year.

—The free textbook law of Oregon was defeated in the legislature with a vote of 32 to 26.

—Xenia, O. Vaccination of school children has been made a permanent requirement under the provisions of a rule adopted by the school board. The rule requires that all children entering school at the beginning of the year, or at any time during the year, present certificates of vaccination from a physician, unless there is one on file in the school office. It was found that the temporary character of the former rule permitted children to remain away from school until the epidemic should pass.

—Chicago, Ill. An audience of approximately four million people is enabled to go to school again through the broadcasting of an educational program each Friday evening. Under the plan, principals, pupils, orchestras and glee clubs assemble at the broadcasting station for the program which runs from 6 to 7 p. m. Short talks on educational subjects are given, interspersed with music, model lessons, questions and answers, and recitations. The project was initiated and developed by the Chicago Principals' Club, under the direction of Principal Henry W. Sumner, chairman of the speakers' bureau.

—Four hundred and twenty pupils were graduated from the elementary schools of Sacramento, Calif., on February 6th. The pupils came from the several schools of the city and were graduated in one large body, assembling for the purpose in the high school auditorium. The union graduating program in elementary schools has been practiced in Sacramento for the last twelve years, with the summer exercises held in the open air.

—Portsmouth, Va. A census of school children 6 to 19 years of age, inclusive, was begun on February 21st. The census is taken every five years as a basis for the distribution of the state school fund.

—In meeting the suggestion that the schools of the state be brought under a larger unit of control, Mrs. Josephine Corliss Preston, state superintendent, recently declared: "In accord with the preponderance of sentiment which ex-

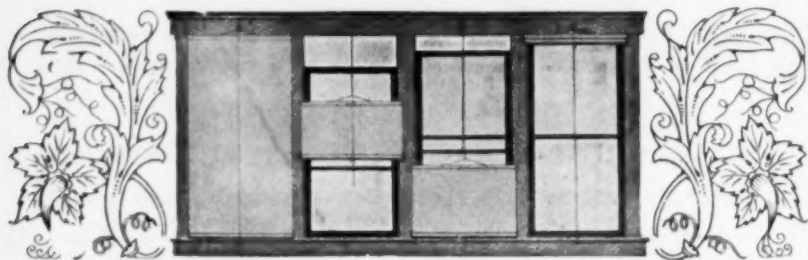
ists in the state of Washington today, I recommend the continuance of the present plan of organization, administration and support of our public schools. I am convinced that the rate of progress which we are making toward large community and taxing units through consolidation of schools, union high schools and joint districts between adjoining counties as well as the provision for disorganization of depopulated school districts is normal and in harmony with the wishes of the majority of the people of the state."

—In discussing the rural school problem of New York state, Ray P. Snyder of the state department of education, recently said: "We have in the state 8,500 one-room buildings in places under 4,500 population. These are our poorest buildings, inadequately lighted, heated and ventilated, and not always possessed of adequate outside space. The teachers in such schools have the poorest training, less than five per cent of them having been educated two years beyond high school, while 80 per cent of teachers in places of 4,500 or above have had at least two years of professional training, and cannot be attracted to one-room schools even by equal salaries. Fundamentally, the problem is economic. There is no single panacea. 'Consolidation' is good where practicable, but it is a great mistake to suggest the closing of one-room schools, many of which are valuable where they now are for the smaller children. The problem to be met must include far better facilities for the work of the higher grades. It is essential that we increase the size of our administrative unit for rural schools. It is, in the second place, essential that we equalize taxation. Some rural districts pay the lowest and some of the highest rates of school taxes, without getting good results."

—Supt. C. E. Rogers of Johnson City, Tenn., has presented a report to the board of education for the fall term 1924-1925, showing the average daily attendance, the per cent of attendance, the cost per capita per month, and the average salary of teachers.

The report shows that the average attendance for all schools was 3,649, the per cent of attendance 95.5, the cost per capita \$3.65, and the average salary of teachers \$100.86.

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on ten months, was \$4.16 for Chattanooga, as compared with \$3.65 for Johnson City, and \$4.28 for Memphis, which was \$0.63 more than for Johnson City. The average salary for high school teachers in Chattanooga was \$130 per month, while for Johnson City the average was \$125.85 for junior and senior high school teachers. The average salary for white elementary teachers in Johnson City amounts to \$89.54.

—The New York City board of education has approved a plan whereby school bands and orchestras are to be formed without cost to the school system. The difficulty heretofore has been that parents have not always been able to provide the instruments required by the students. The plan provides that the parent will pay \$3 a month for instruction. The child will pay \$1 a month for the use of the instrument, which will be provided by the teachers. The child will be permitted to purchase the instrument on the installment plan if he so elects, the monthly fee for its use to be applied to the purchase price. Otherwise, it will revert to the original owners, the teachers who are in this work. One dollar a month extra will be paid by the parent for ensemble practice.

—The question of a man or woman superintendent has arisen at Superior, Wis. The term of Miss Grace Geary as superintendent expires July 1st. Rev. A. T. Ekblad, a member of the school board, favors a man. He says: "Personally, I believe we need a man on the job and the best man obtainable." Local sentiment is divided.

—In opposing the selection of county superintendents by popular vote, P. L. Harned, state commissioner of education of Tennessee, says: "Possibly there is not a successful business corporation whose stockholders elect the officers of the institution. The stockholders elect the directors, but the directors look over the field to find a man who can manage the business successfully, employ him and keep him as long as he manages their business satisfactorily. Nobody hears a murmur among the stockholders because they do not have a vote in electing the manager of their business. The stockholders want dividends and are perfectly satisfied with the management so long as dividends are paid. Successful business institutions do not change

their managers every two years. For a number of years the feeling that the public schools should have a business administration has been growing and in order to remove the school administration as far from politics as possible, the importance of electing the county superintendent by the county board of education has been clearly evident."

"The class 'lock step' system, in which children in the public schools, unscientifically grouped in grades, get the same assignments and periods of instruction, results in an economic loss to the country each year, greater than the yearly cost of public education," said C. W. Washburne, superintendent of schools at Winnetka, Ill., in a public address recently. "About 1,000,000 children are required each year to repeat a school grade and the advancement of another 1,000,000 is retarded each year, under the present methods of group instruction. The yearly cost from this delay is about \$150,000,000. Assuming that 2,000,000 children complete the required school course one year later than they could, were individual methods of instruction used, and assuming that each child if gainfully employed would increase the country's wealth \$1,000, the total loss would be increased by \$2,000,000,000."

—The question of paying the superintendents' traveling expenses in attending conventions came under consideration at Lynn, Mass. The city council ruled that such expenses could not legally be paid. The board of education ruled that when it sent Superintendent Gruver to attend an educational convention, his expenses ought to be and will be paid.

—The police department of Indianapolis, Ind., provides traffic cops to protect children near school buildings before and after school hours. The police department, however, suggests that school janitors be provided with uniforms and assigned to this duty.

—When G. S. Miller was discharged from the position of high school principal by the Coggin, Iowa, school board, some ninety students walked out on a strike.

—Over one hundred and fifty pupils went on a strike when they were ordered transferred from school No. 33 to school No. 5, Bronx borough, New York City.

—The Indiana House has killed the Hinkle bill, seeking to compel the Indianapolis schools to provide free textbooks to children in the schools.

—A bill to eliminate the Delaware whipping post has been presented in the Delaware House.

—The governor of Rhode Island has signed the Strayer-Sisson bill providing for the reorganization of the school board of Providence. Preparations are in progress for the holding of the primaries and election at which the new school committee will be chosen.

—The Oregon House has passed the textbook bill over the veto of the governor.

—House bill No. 116, recently introduced in the Idaho legislature, proposes the elimination of the office of commissioner of education. Under the bill, the management of all educational institutions within the state would be placed in the hands of the state superintendent of instruction, as an agent of the state board of education. A companion measure provides for an increase in the salary of the superintendent.

—Attorney General Webb of California, in a recent decision, holds that the state board of education has no authority to change the form of high school textbook listing contracts with publishers for the purpose of removing objectionable material. The attorney general pointed out that the purpose of the law is to afford the school board ample opportunity to inspect books before placing them on the approved list.

—Great significance attaches to a recent decision of the Oklahoma Supreme Court, to the effect that the burden of education rests upon the state rather than upon the rural community. Teachers in some districts are poorly paid and schools are kept open less than the maximum period because property is evaluated far below its actual worth, or taxes are assessed at too low rates. No doubt the decision will have some influence in accelerating the movement now general for equalization of educational opportunity.

—A measure has been introduced in the Missouri legislature providing for a constitutional amendment, authorizing cities to vote retirement funds for aged school teachers.



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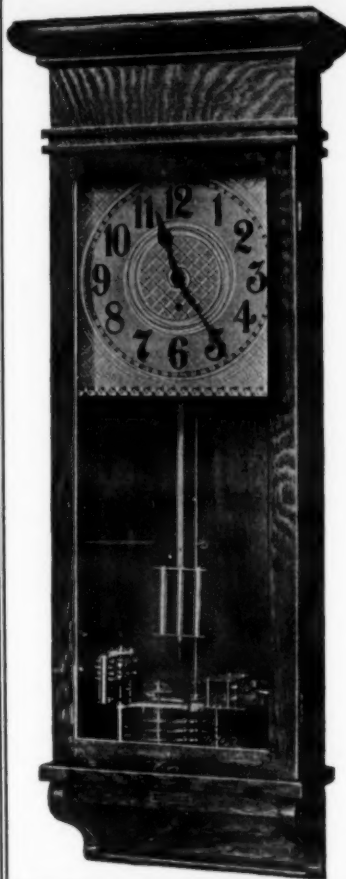
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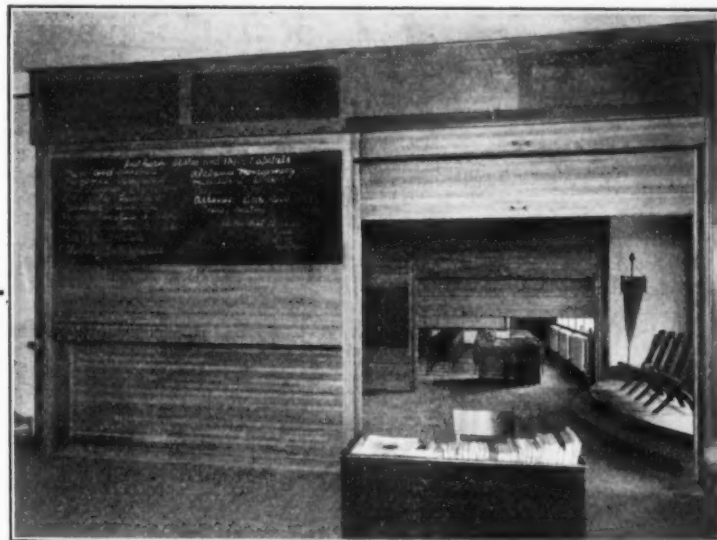
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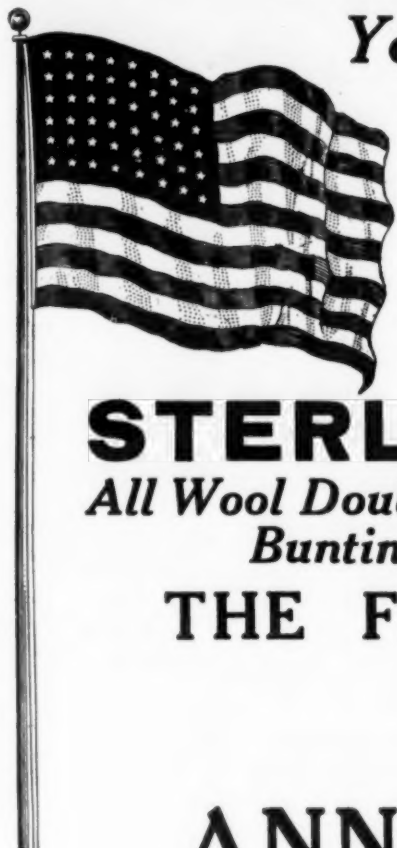
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NEW BOOKS

Economics for Secondary Schools

By Eugene B. Reiley, B. S. Cloth bound, 318 pages. Price \$1.60. Published by Houghton Mifflin & Company, Boston.

Here is presented a teachable textbook on economics. The author makes clear the basic principles which govern. He deals with production, distribution and consumption in a practical fashion. The form of modern business organization are discussed. Exchange, value and price are explained. The part which money, credit and banking play in the business world are made plain. Every essential phase of American business is treated.

The author also deals with the problems of wages and labor, public finance and foreign trade. A somewhat extended appendix affords ample question material. Economics as a science is well discussed.

An Analysis of Janitor Service in Elementary Schools

By Charles W. Reeves. Cloth, 194 pages. Published by Teachers College, Columbia University, New York City.

Here is a book which makes for the physical efficiency of the school plant. It deals with the work of the janitor.

The author has made a careful objective study of janitor service. He familiarized himself with the actual labors that come within the province of that service, and the operations that must be engaged in in order to keep the schoolhouse wholesome, clean and comfortable. Thus, a large part of the book is devoted to the results of actual observation of methods and frequency of cleaning. Sweeping and cleaning, and the care of floors and walls are brought down to systematic treatment based on the results of motion and time studies.

The operation of a heating and ventilating system, as well as the general care of the school

premises, are dealt with from a common sense point of view.

The practical phases presented are accompanied with definite recommendations which will enable school authorities to formulate standards upon which to base and to exact janitorial service. The book deserves to be classed as a real contribution to the housekeeping side of the modern school.

Automotive Electricity

By George A. Willoughby. Cloth, 128 pages, illustrated. Price, \$1.40, postpaid. The Manual Arts Press, Peoria, Ill.

This book presents a simple course in electrical principles as applied to the apparatus, devices, and wiring used in the electrical systems for automobiles. It is informational and educational in purpose and content, rather than vocational. The study of type systems is general rather than specific. The book will be useful in high school electrical courses and general automobile courses.

The Teaching of Elementary Algebra

By Paul Ligda. Cloth, 12mo., 256 pages. Price, \$1.90. Houghton Mifflin Co., Boston, Mass.

Recent studies of secondary education have done much to clarify thinking on the purposes and values of mathematics, particularly algebra, but the benefits which might well be expected have not developed uniformly because the literature of methods has not been ample. The individual teacher has been left too largely to his own devices in developing into active classroom materials the generalized helps which have been presented.

The present writer approaches the problem with the idea that the teaching of algebra causes more difficulty in the ninth year than any other subject, and that it can be made relatively easy and of immense value. He argues that the subject must be introduced to arouse interest—motivated—and must develop mathematical thinking in relation to life problems. He shows how this may be done in the introductory lessons and developed into permanent habits by the wise choice of typical problems. Next he takes up the teaching of fundamentals, outlining a careful combination of the deductive method with the popular variations of the inductive method. Subsequent chapters treat of

symbolic notations; the equation and its laws; the solution of problems by emphasis on the setting, and the development of logical methods; parenthesis and negative numbers. The use of the function concept is developed minutely and specific class presentations are outlined. The analysis of problems as the fundamentally important element is insisted upon in an illuminating chapter. And finally the need of algebra in the vocations, in industry and trade, and in all life activities is convincingly argued: Sound quantitative notions are essential in every human relations, in all personal and civic undertakings; the types of reasoning developed in algebraic work are common to every day life in many ways. The habit of quantitative thinking is essential to success in this age.

The author's arguments for his points of view are persuasive, even though one may at times disagree with him. His opposition to the "practical" problems will disturb the most hardened vocational teacher of applied algebra and rather convinces us against our will. His method of problem analysis is the strongest contribution which he makes to the entire subject.

The book is thought-provoking and a real contribution to the subject. Every teacher who reads it will gain much from it.

New Complete Business Arithmetic


By George H. Van Tuyl. Cloth, 440 pages. List price, \$1.48.

New Essentials of Business Arithmetic

By George H. Van Tuyl. Cloth, 315 pages. List price, \$1.20. American Book Company, Chicago.

These two books are in many respects identical. The first book named contains more and further advanced problems than the second. The author has, in the preparation of these texts, emphasized fundamental principles of arithmetic rather than set rules for the solution of problems. He has sought to make number relations and rapid calculation a habitual tool of the business worker.

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The Constitution of the United States

With an introduction by R. A. Mauer and George J. Jones. Cloth, 16 mo., 128 pages. D. C. Heath & Co., Boston.

This book provides the historical background for a study of the government of the United States. It traces the growth of democratic ideas from the beginnings in town government in New England and county government in the southern colonies, through the various changes in colonial government to the opposition to English dictation, which culminated in the Declaration of Independence and the Revolutionary War. The subsequent adoption of the articles of confederation and the writing of the Constitution are shown to be the logical pinnacle of the movement for democracy. The heart of the book is a chapter which discusses the fundamental principles of the constitution, and indicates the aims and effects of its major provisions. The Constitution itself and a skeleton outline, with questions, complete the book. When the volume is reprinted a table of contents may well be added.

The United States of America

Vol. II—From the Civil War. By David Saville Muzzey. Cloth bound, 803 pages. Published by Ginn & Co., Boston, Mass.

The author has divided the history of the United States beginning with the inauguration of Thomas Jefferson to the present day, into two

equal periods of sixty years each. The first he designates as the period of expansion, conquest, and purchase. This brings him up to the Civil War.

The period since the Civil War no longer deals with sectional cleavage along political-constitutional lines between North and South, but rather with an economic sectionalism between the East and West. The federal control of big business has entered, and the nation has departed from its traditional policy of isolation and become a factor in world affairs.

After dealing with the reconstruction era following the Civil War and the bases of a new nationalism, the decade of political deadlock and the revolt of the West is discussed. The contentions which disturbed the nation during the administrations of Cleveland, Roosevelt, and Wilson form the most instructive chapters in the book.

The World War, as seen from the standpoint of the United States government, and the policies which guided our participation in the same, come into fulsome discussion. The author marshals facts, motives, and results with surprising abundance, and aims to tell each important tendency or movement with reasonable completeness. In doing so, he ignores the chronological order of the several events, but holds to a given movement treating the same completely from its inception to its conclusion.

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Arthur S. Otis. Cloth, 12mo, 340 pages. Price, \$0.16. World Book Co., Yonkers, N. Y.

The rapid growth of objective methods of measuring educational results has given rise to new statistical methods and new applications of older established statistical principles and devices. In fact, the standardization of educational and psychological tests has depended upon statistical methods which have given meaning to the findings obtained. The present book offers a complete course in statistics as applied to edu-

cation and educational psychology.

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The final chapter drives home the ultimate utility of all testing and all statistical method by indicating how findings are to be applied to the grading and classifying of pupils. In the preceding chapters this is frequently referred to and illustrated in the examples cited, and the exercises and problems suggested.

School administrators will welcome this book as a useful guide and reference work.

Language Training

By Catherine T. Bryce. Cloth, 245 pages. Price, \$0.80. Newson & Co., 75 Fifth Ave., New York.

This book is designed to guide the primary and second grade teachers in their language work. It aims to conform to the language outlines observed in the larger number of schools and where teachers have applied themselves with special concern to improved method. The drills and games introduced by the author aim to eliminate speech errors and the establishment of correct speech habits.

The material chosen will interest the rural as well as the city child. It introduces home and school topics for conversation, toys and play-time, pet animals, health and safety topics, courtesy topics, and speech training for clear articulation.

Applied Print Shop Mathematics

By C. W. Hague. Paper, 32 pages. Published by the Bruce Publishing Co., Milwaukee, Wisconsin.

The principles of arithmetic applied to practical problems of the print shop. The text will be found useful in vocational as well as general high school classes.

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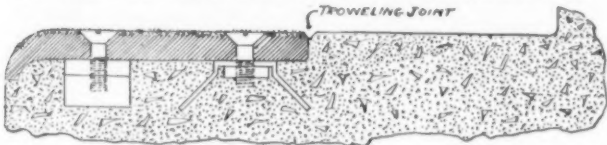
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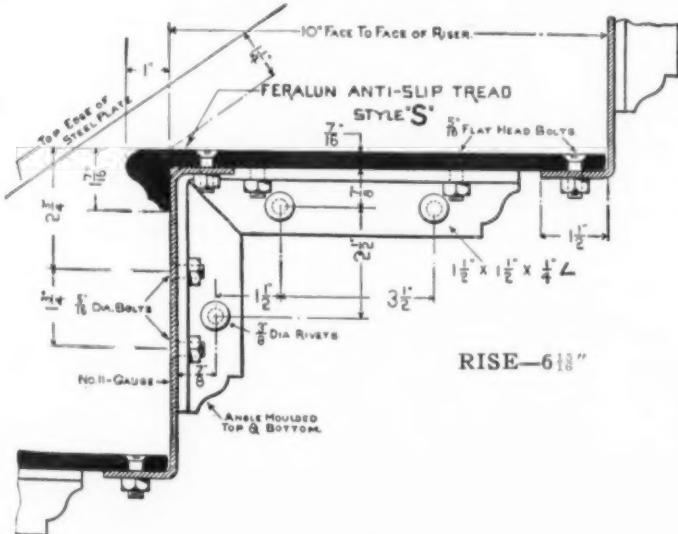
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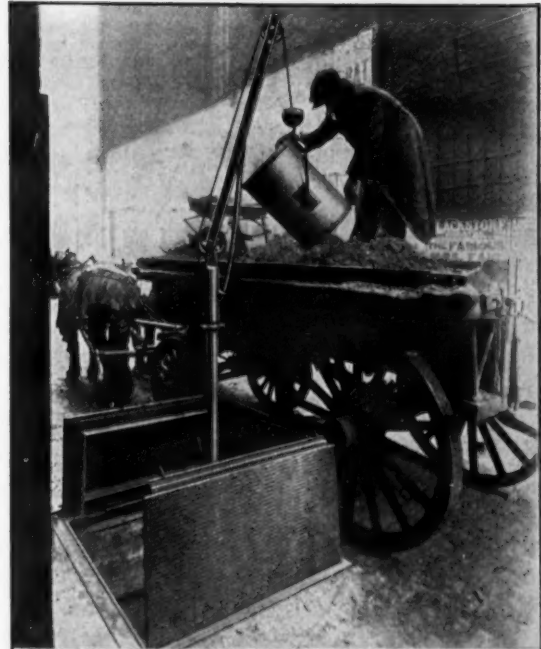
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Book I. Ernst R. Breslich. Cloth, 12 mo., 280 pages. The Macmillan Co., New York.

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Michel Jacobs. Cloth, octavo; 116 pages, and 86 charts. Price, \$3, net. D. Van Nostrand Co., New York City.

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By H. A. Guerber. Cloth, 370 pages, illustrated. American Book Co., Chicago.

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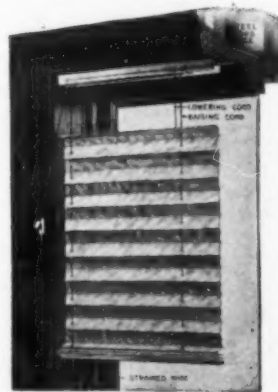
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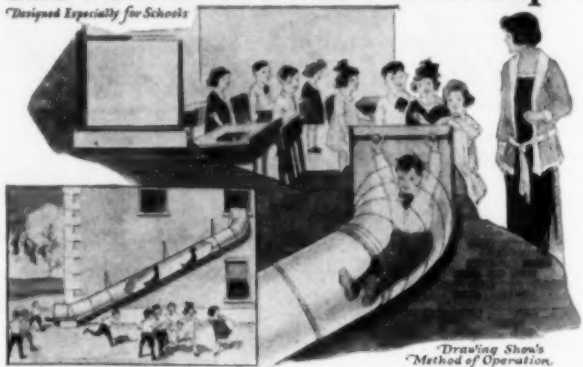
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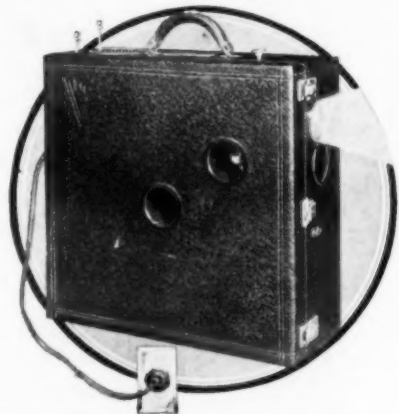
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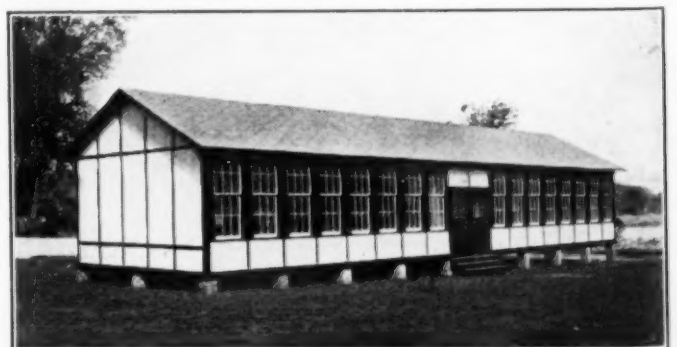
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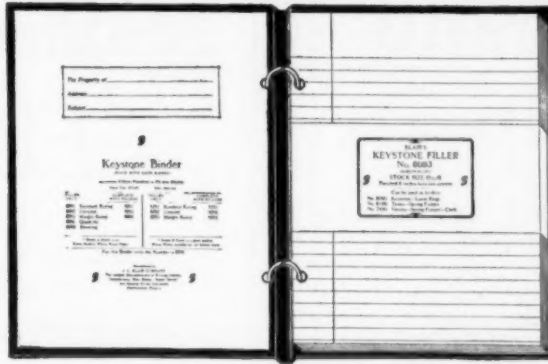
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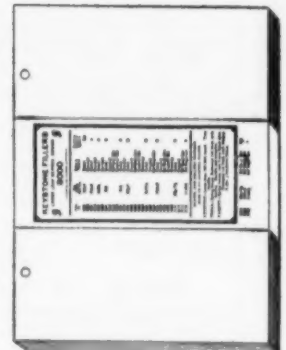
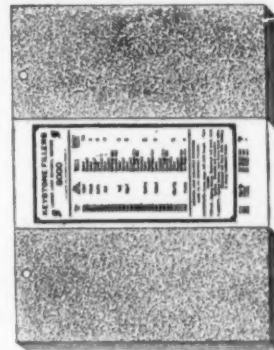
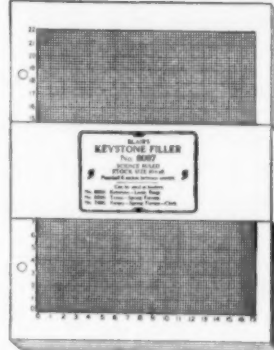
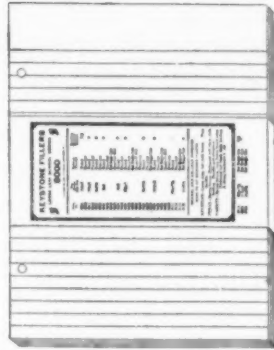
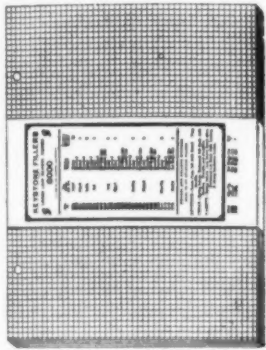
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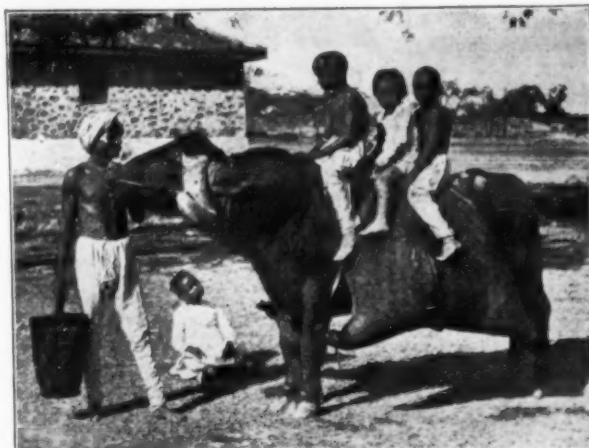
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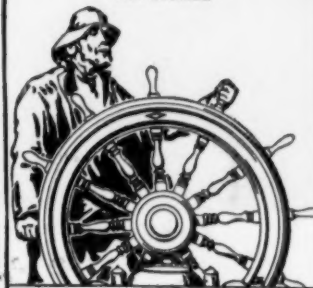
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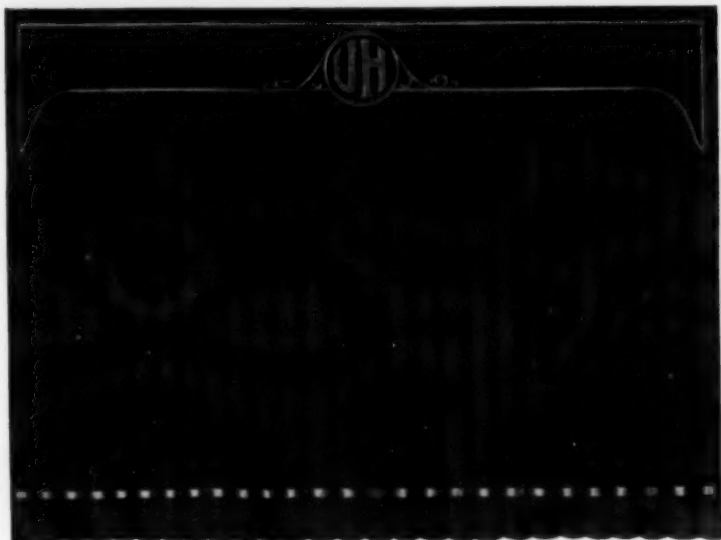
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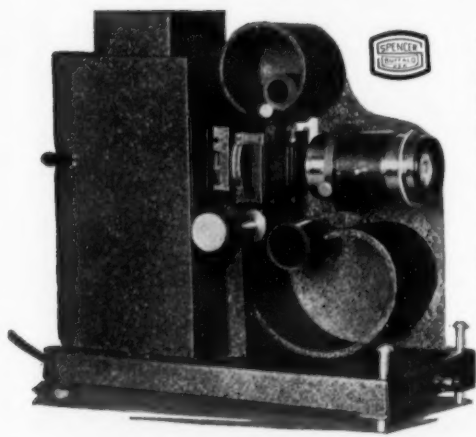
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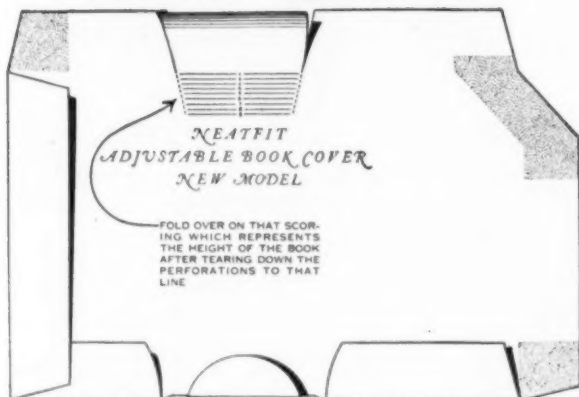
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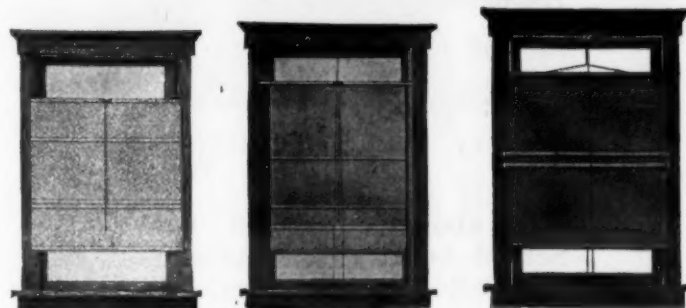
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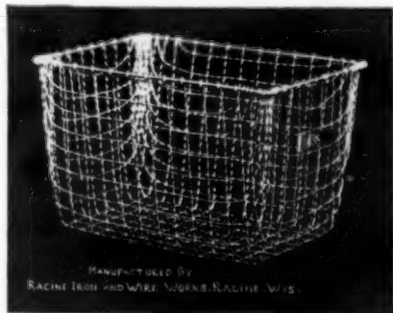


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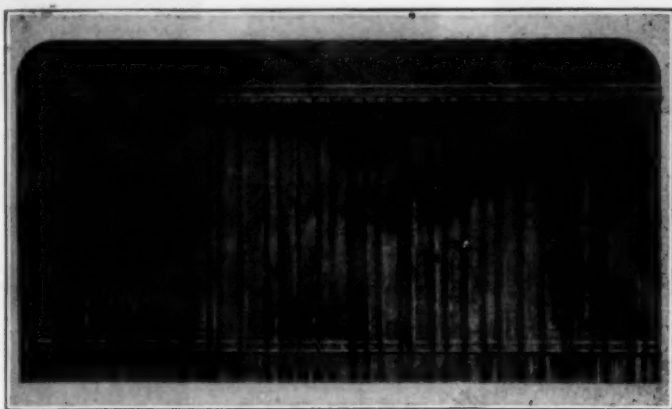
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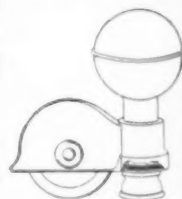
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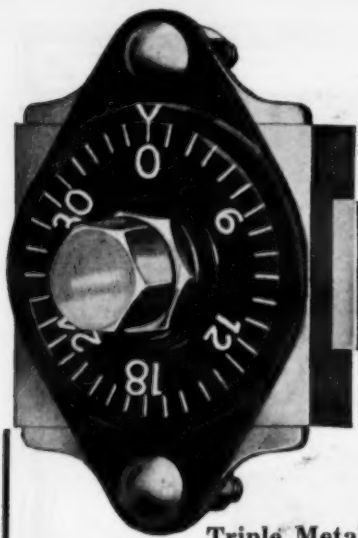
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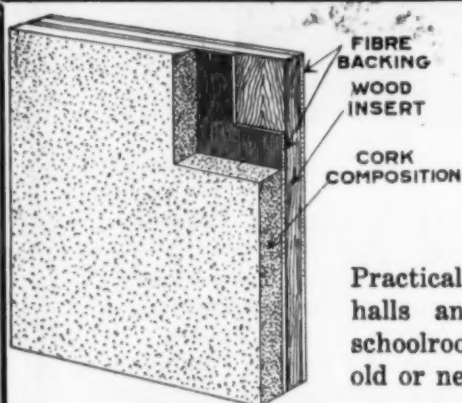
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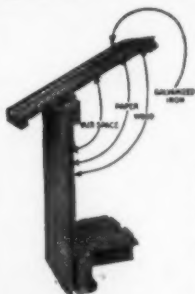
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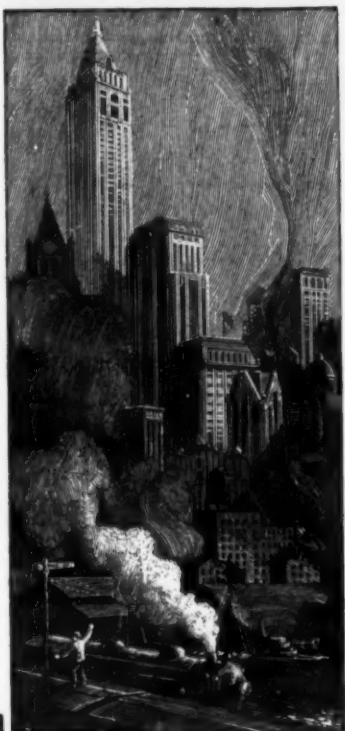
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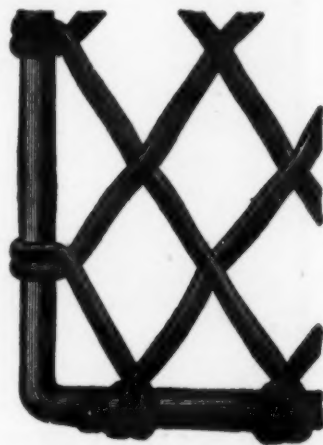
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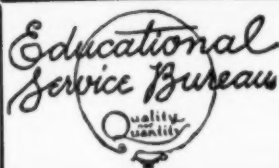
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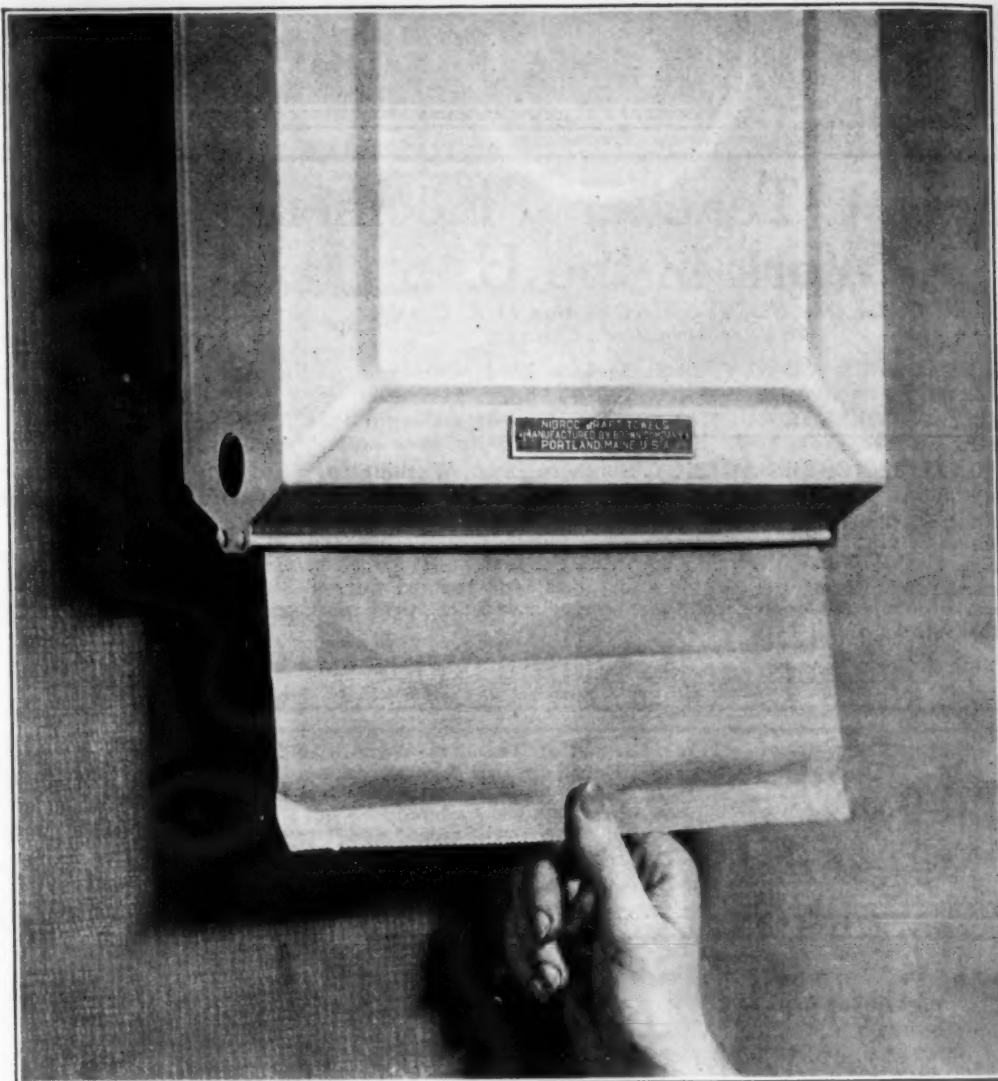
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Duraflex Company, The	83	Natural Slate Blackboard Co.	147	Vonnegut Hardware Company	2nd Cover
Durand Steel Locker Co.	100	Nelson Corp., The Herman	8	Wadsworth, Howland & Co.	101
Durand Co., Inc., The	126	Nelson Mfg. Co., N. O.	12 and 154	Walworth Book Cover Co., A. T.	144
Economy Draw. Table & Mfg. Co.	28	Neblitt, Inc., John J.	7	Wayne Iron Works	96
Eric Art Metal Company	154	Newson and Company	145	Webster & Co., Warren	130
Federal Electric Co., The	154	N. Y. Silicate Book Slate Co.	156	Wels Mfg. Company, Henry	129
Federal Steel Products Co.	154	Niagara Clock Corp.	137	Welfare, Inc.	26
Federal Telephone Mfg. Corp.	146	Norton Door Closer Co.	136	Western Shade Cloth Company	74
Flint & Walling Mfg. Co.	112	Ordinator Company, Inc.	140	Wilder-Pike Thermometer Co.	124
Freepoint Gas Machine Co.	112			Williams Pivot Sash Co., The	92
Gillis & Geoghegan, The	143			Wilson Corp., Jas. G.	133 and 142
Globe Ventilator Co.	124			Zieg Mfg. Co., The F. B.	137
Greenfield Tap & Die Corp.	112				
Gregg Publishing Company	148				
Gunn Furniture Company	31				

AFTER THE MEETING



Best of Reasons

Teacher—George Washington would not tell a lie. Don't you want to be like him?

Tommy—No, miss.

Teacher—Why not?

Tommy—He's dead.

Teacher—Did you ever read, "To A Bumblebee?"

Brite one—No, how do you make them listen?

Getting Mad

Teacher: "Anna, please keep quiet."

(No answer.)

Teacher: "Anna, I told you not to talk to anyone."

Anna: "I wasn't talking to anyone—I was just talking to myself."

Teacher: "Do you often talk to yourself?"

Anna: "Just when you get me mad."

Was Satiated, Anyway

Teacher—Robert, give me a sentence using the word "satiated."

Bobby—I took Mamie Jones to a picnic last summer and I'll satiate quite a lot.—Boston Transcript.

His Mistake

"I read the book you wrote about ancient history," said Lowbrow, "and I can't say much for it. It is full of mistakes."

"How's that?" inquired the surprised author.

"Well, one thing made me laugh. You said a fellow named Epicurus was born in 348 B. C., and then a little farther on you said he died 270 B. C. That kills him off before he was born."

Giving Full Credit

The teacher was giving the primary class a talk on flowers. "Now, children," she said, "who can tell me what makes the flower spring from the seed?"

"God does it," answered one little girl, "but fertilizer helps."—Boston Transcript.

Well Trained

A boy whose father had always been a great stickler for etiquette was sent to a distant boarding-school. Upon his departure, the father instructed the son to telegraph home "yes" if he found everything satisfactory.

He did so, but the busy parent had forgotten the arrangement, and on receiving the promised message, telegraphed back: "Yes wha?"

The answer came: "Yes, father."

Afraid of Revenge

Billy had sprained his wrist and didn't want to go to school.

"But your wrist is nicely bandaged," urged his mother. "It won't prevent you from going."

Still the boy held back.

"Now, speak up, my boy," commanded his father. "Let's have the real reason. Why don't you want to go to school with a sprained wrist?"

"Too many boys owe me a licking," said Billy.

Its Chief Ailment

Mr. George Coe, of Teachers College, Columbia University, wants to know "What ails our youth?"

Just youth, that's all. And time will take care of that.—N. Y. Telegraph.

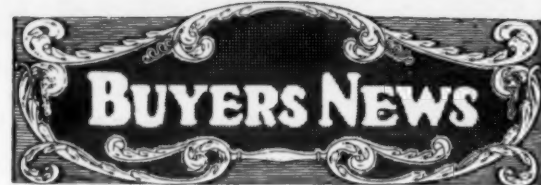
Imported Joke

Teacher—Why are you so late?

Pupil—Father wanted me at home.

Teacher—Wouldn't someone else have done?

Pupil—No; he was giving me a spanking—



TRADE PUBLICATIONS

Norton Floors Safe and Permanent. The Norton Co., of Worcester, Mass., has issued an illustrated circular, showing typical installations of Norton floors approved by architects and engineers. Norton alundum aggregates in actual use have proven not only an artistic acquisition to a building but have in addition the qualities of safety and permanency in use. It is attractive and suitable for the most luxurious as well as utilitarian type of structure.

The firm has been able to obtain some excellent microscopic specimens with the aid of the camera, showing the character of the abrasive grain, also of alundum aggregate. The abrasive grain, it is found, does not bond well with cement, while alundum aggregates bond perfectly with cement and become an integral part of the floor. This results in a durable surface that is slip-proof to a high degree.

The firm offers to send full specifications covering the various types of Norton floors, suitable for incorporation into architects' specifications. These sheets offer excellent material covering standard types, sizes, and forms of Norton tiles, slabs, and treads and also sketch plans for installing the floors under various conditions.

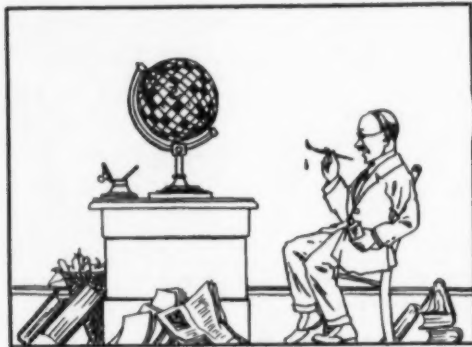
Issues Catalog of Furnace and Stove Pipes. A practical catalog on furnace pipe and fittings, stove pipe and elbows, has just been issued by the Milwaukee Corrugating Co. The catalog includes not only complete descriptions and clear illustrations of the entire line manufactured by the firm, but also considerable practical data for furnace men, purchasers, and users of furnace fittings and pipes. Among the data are mathematical rules, used in estimating pipes, and the Standard Code, regulating the installation of furnaces in domestic buildings. Methods of estimating materials, etc., are also included.

The Milwaukee Corrugating Company has recently erected a \$250,000 addition to its main plant to handle the manufacture of furnace and stove pipes, registers, and other furnace accessories. The catalog will be sent to any interested person who addresses the main office of the Milwaukee Corrugating Co., at Milwaukee, Wisconsin.

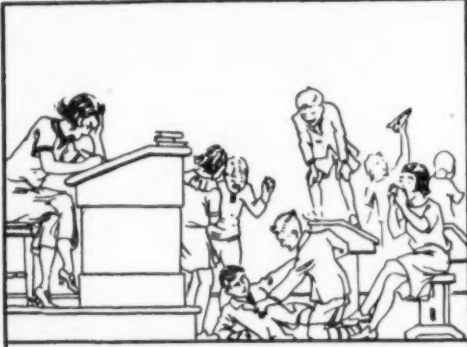
Lantern Slides and Lecture Materials on Eyesight Conservation. Bulletin No. 5, 1924, price, \$0.40. Issued by the Eyesight Conservation Council of America, New York City. The present pamphlet has been prepared to show that the story of the eye can be presented in a more impressive way with the use of illustrated lectures. The Eyesight Conservation Council has prepared a number of colored lantern slides to accompany the slides and a booklet showing reduced illustrations of the pictures, accompanied by descriptive text and data. Special care has been taken in the preparation of the slides. All diagrams, charts and statistical data appear white on a black background, and on such pictures as ordinarily appear with large white areas, the backgrounds are tinted a yellowish green. The pamphlet takes up factory, office and school lighting and points out various defects in eyesight.

Educational Tests for Use in Elementary Schools, (revised). By C. W. Odell. Educational Research Circular No. 33, December, 1924, issued by the University of Illinois, Urbana. The pamphlet discusses prerequisites for the selection of a test, frequency of tests, the planning of the testing program, and purposes to be realized from the tests. A very complete bibliography of tests in the various school subjects has been included for reference purposes.

The Sabbatical Year Plan for the Teaching and Supervising Staff of New York City. By Emma M. Cappel. Issued by the Teachers' Welfare League, New York City. The introduction of the plan will be only an extension of the workings of the policy now in operation in New York City, so that a larger number of teachers may obtain a leave of absence with pay. The pamphlet tells how the leaves are granted, the purpose and duration of the leave, the priority of the leave and the conditions to be observed in the contract.



The Head Master makes the globe really useful.



The Teacher puzzles over a word of five letters meaning "silence."



At home, Mother can't think of a word ending in 'p' meaning 'spill'.



The boys (& girls) are also very much absorbed.

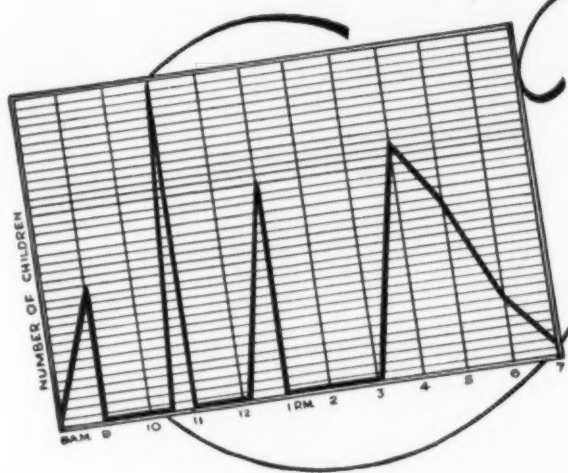
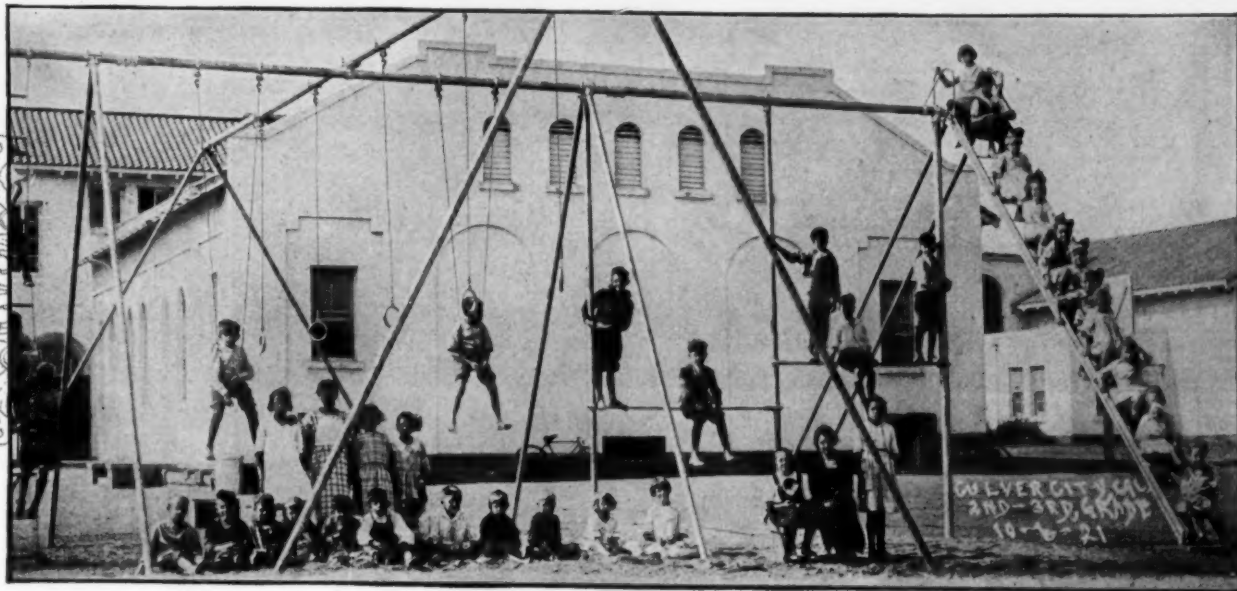


The Inspector can't leave them alone.



Even the Board is infected. Here we see Lord Eustace Percy & Sir Amherst Selby-Digge preparing Circular C.W. 36 (across) on Cross Word Puzzles.

THE CROSS WORD PUZZLE OVERWHELMS THE ENGLISH SCHOOLS.
—Teachers' World.



The Peak-Load of Playgrounds

Like transit companies and power plants, playgrounds must be prepared to take care of the "peak-load"—the hours when apparatus is jammed—when clamoring youngsters pile on swings, ladders or Giant Stride. Heedless of their own safety, these reckless care-free little folks must be protected. And there lies *your* responsibility as a purchaser of playground apparatus.

Steel Lockers

Medart steel lockers are generally recognized as the ultimate in refinement and durability. Standard finishes are Olive Green or French Gray—also supplied in grained walnut or mahogany to harmonize with woodwork. All types are available: Single tier (illustrated), double tier, or recessed in wall. Complete descriptions can be found in 40-page Catalog A-2.

Gymnasium Equipment

Medart equipment is found in the finest outfitted gymnasiums throughout the country. The perpetuation of the ideals of Fred Medart, who in 1873 started the manufacture of gymnasium equipment, is responsible for the widespread practice of considering Medart the standard. Complete description of the most modern gymnasium apparatus made will be found in 92-page Catalog L-6. Send for it.

MEDART

PLAYGROUND EQUIPMENT

Over 50 years of experience has enabled Medart engineers to design playground apparatus which will yield a high margin of Safety during "peak-hours." It is but natural that the qualities of Durability and Economy should follow that of Safety.

Catalog M-5 contains much valuable information on playgrounds and equipment. May we send it?

Fred Medart Manufacturing Co.

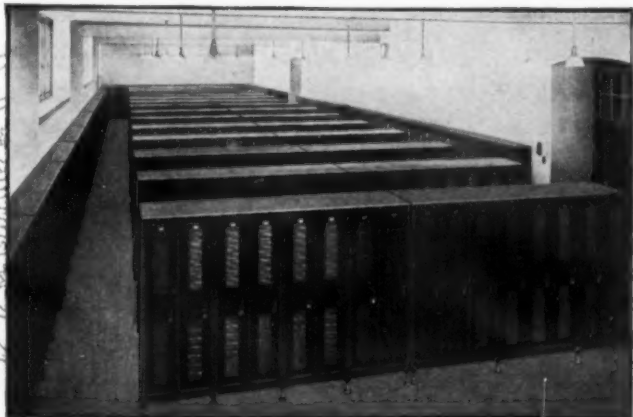
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BUILD THE NATION SECURELY WITH
INDIANA LIMESTONE
 The NATION'S BUILDING STONE

THE obscure little school house, crudely built of local stone, attended by President Coolidge in his early years, and the monumental structures of Indiana Limestone erected in our cities today carry on the tradition of the ancient civilizations whose first schools were housed in temples of stone.

Whereas local stones were used in a primitive way for school buildings by the early colonists in this country, stone from the great Indiana Limestone quarries is nowadays so economically available in all parts of the United States and Canada that it is the most generally used of all building stones. Its easy availability together with its beauty and sound structural characteristics have established its desirability among architects and builders of schools.



Old Stone Schoolhouse and School-mates of Calvin Coolidge at Plymouth, Vermont, in the Early '80's

PHOTO BY UNDERWOOD & UNDERWOOD

Our handsomely illustrated booklet, "Indiana Limestone for School and College Buildings," will be sent free upon request.

Indiana Limestone Quarrymen's Association
 Box 780, Bedford, Indiana
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*East High School, Des Moines, Iowa
 Proudfoot, Bird and Rawson, Architects*





U. S. Naval Academy
Annapolis, Md.

After eight years of
hard usage in this in-
stitution 100,000 sq.
ft. of T-M-B Floors
look like new.



Arthur H. Howard Junior
High School, Wilmette.
T-M-B Flooring is
in use in its corridors

THE "APPROVED" SCHOOL FLOOR.

If you want a floor of lasting satisfaction you will get it in Moulding's T-M-B, the flooring which meets every school requirement.

It is made of imperishable materials. Years of hard use in class rooms, under the constant tread of thousands of feet have proved its PERMANENT quality in schools and colleges throughout the United States.

Its resilient, smooth and rubber-like, non-slippery surface is comfortable and quiet under foot. Laid plastic it is absolutely seamless and hygienic. It is easily cleaned and costs nothing to maintain. Painting and varnishing are never necessary.

The cost of installation is low. The work is done by our skilled men and we stand back of both materials and workmanship.

For these reasons T-M-B Flooring has the approval of leading architects everywhere.

Moulding's

*"The Floor That
Keeps Its Promise"*

Manufactured and Installed by

THOS. MOULDING BRICK COMPANY

133 W. Washington St., Chicago, Illinois.

Grand Central Terminal Building, New York.

Sixty years in the building material business is your assurance of
genuine responsibility and financial stability.

A few of the recent installations of Moulding's T-M-B Flooring:

Warren G. Harding High School, Bridgeport, Conn. 55,000 sq. ft.

Thos. H. Bayard School, Wilmington, Delaware. 20,000 sq. ft.

New Hampshire State Hospital, Concord, N. H. 55,000 sq. ft.

AUSTRAL



EVANSTON TOWNSHIP HIGH SCHOOL
Evanston, Illinois

PERKINS, FELLOWS & HAMILTON
Architects

Where the maximum of light, and perfect, draftless ventilation are of prime importance, as in schools, Austral windows should be specified — for they were especially designed to meet just such requirements. Moreover, shades affixed to the sash take the place of awnings, without interfering with free passage of air. Austral windows may be opened and closed singly or in groups.

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